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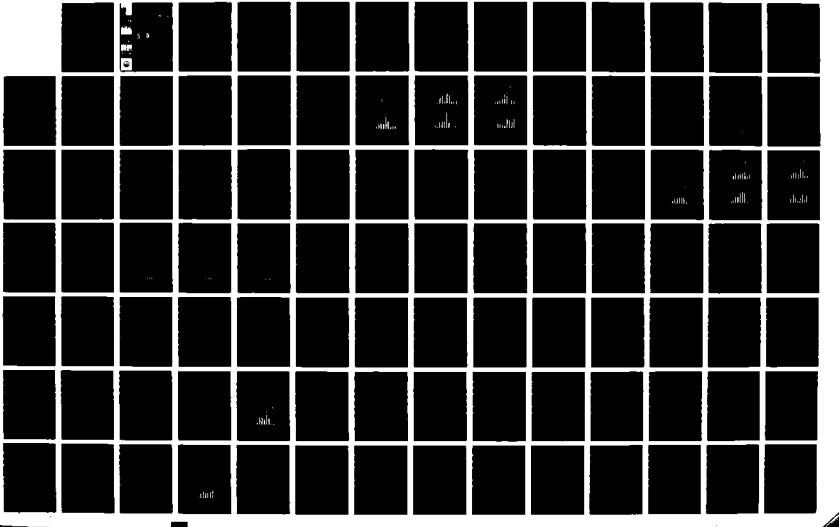

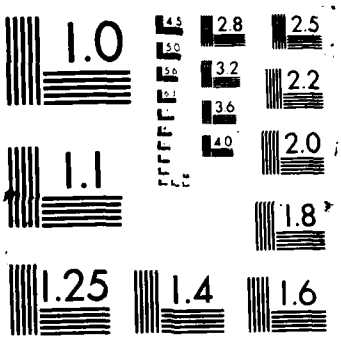
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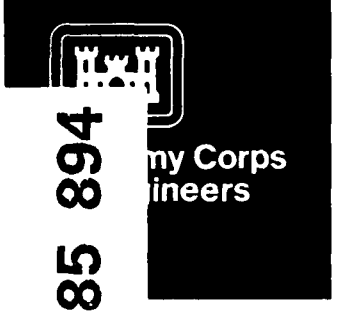

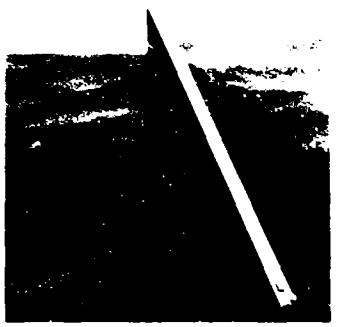

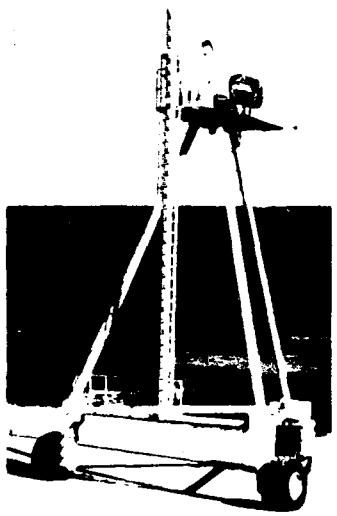

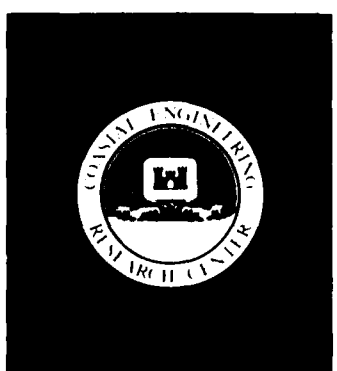

TECHNICAL REPORT CERC-87-13

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ANNUAL DATA SUMMARY AND CLIMATOLOGICAL EVALUATION CERC FIELD RESEARCH FACILITY, 1985

Volume II
APPENDIX C

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by

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APPENDIX C: WAVE DATA

1. Wave data summaries for 1985 and climatological summaries for 1980 through 1985 are presented in this appendix. An explanation of the summary formats is followed by the data for Gages 625, 630, 640, and 645. Wave data are summarized in the following forms:

Gage Histories

2. Table C1 includes information about the gages, gage installations, and major interruptions in the data collection. Short interruptions in the operational status of the gage are not mentioned.

Time-Histories

3. A continuous display of individual wave height and peak spectral wave period values are plotted as a function of the time throughout the year (Figures C1, C21, C34, and C41). Gaps indicate breaks in the data longer than 24 hr.

Annual; Seasonal; and Monthly Maxima, Mean, and Standard Deviations of Wave Height and Peak Period

4. Mean 1985 wave height and standard deviation, mean peak wave period and standard deviation, and extreme wave heights are listed in Tables C2, C12, C22, and C27 and plotted in Figures C2, C22, C35, and C42. Combined statistics for 1980 through 1985 are given in Tables C7, C17, and C32 and plotted in Figures C11, C28, and C47. Also included in the tables is the total number of observations obtained; at four observations per day, the maximum number of observations per month (based on a 30-day period) is 120. In the figures, the standard deviations are presented as vertical bars originating at the mean value and extending to the mean plus one standard deviation value. The extreme values are plotted above. No extreme period values are presented.

Distributions of Wave Height Versus Peak Period

5. Annual, seasonal, and monthly joint distribution tables are presented for 1985 in Tables C3-5, C13-15, C23-25, and C28-30; data for 1980 through 1985 are in Tables C8-10, C18-20, and C33-35. Each table gives the frequency (in parts per 10,000) for which the wave height and peak period were within the specified intervals; these values can be converted to percent by dividing by 100. Marginal totals are also included. The row total gives the total number of observations out of 10,000 which fell within each specified peak period interval. The column total gives the number of observations out of 10,000 which fell within each specified wave height interval.

Cumulative Distributions of Wave Height

6. For each gage, annual, seasonal, and monthly wave height distributions of 1985 are plotted in cumulative form in Figures C3-5, C23-25, C36-38, and C43-45. Data for 1980 through 1985 are in Figures C12-14, C29-31, and C49-51.

Peak Spectral Wave Period Distributions

7. Annual, seasonal, and monthly peak wave period T_p distribution histograms for 1985 are presented in Figures C6-8, C26-27, C39-40, and C46-47; data for 1980 through 1985 are in Figures C15-17, C32-33, C52, and C53.

Persistence of Wave Heights

8. Tables C6, C16, and C26 show the number of times throughout 1985 when the specified wave height was equaled or exceeded at least once during each day for the duration (consecutive days) indicated; data for 1980 through 1985 are in Tables C11, C21, C31 and C36. For example, Table C6 for Gage 625 (located at the seaward end of the FRF pier) indicates wave heights equaled or exceeded 1.0 m 44 times for at least 1 day; 33 times for at least 2 days; 22 times for at least 3 days; 14 times for at least 4 days, etc. Therefore, on 11 occasions, the height equaled or exceeded 1.0 m for 1 day exactly (44 - 33 = 11); on 11 occasions for 2 days; on 8 occasions 3 days, etc. Note

that the height exceeded 1 m 44 times for 1 day or longer, while heights exceeded 0.5 m only 36 times for this same duration. This change in durations occurred because the longer durations of lower waves may be interspersed with shorter, but more frequent, intervals of higher waves. For example, 1 of the times that the wave heights exceeded 0.5 m for 19 days may have represented 3 times the height exceeded 1 m for shorter durations.

Wave Roses

9. Wave roses showing the distribution of wave height (from Gage 625) versus visually observed approach angle at the seaward end of the FRF pier are presented. Data for 1985 are in Figures C9-10, while 1980 through 1985 data are in Figures C18-19. The angles are referenced to true north. Northerly wave angles, e.g. less than 70 deg, generally produce southward currents, while southerly wave angles greater than 70 deg produce northward currents.

Spectra

10. Spectra for the pier end gage (Gage 625) for days when wave heights exceeded 2 m are presented in Figure C20. The plots show energy density as a function of wave frequency.

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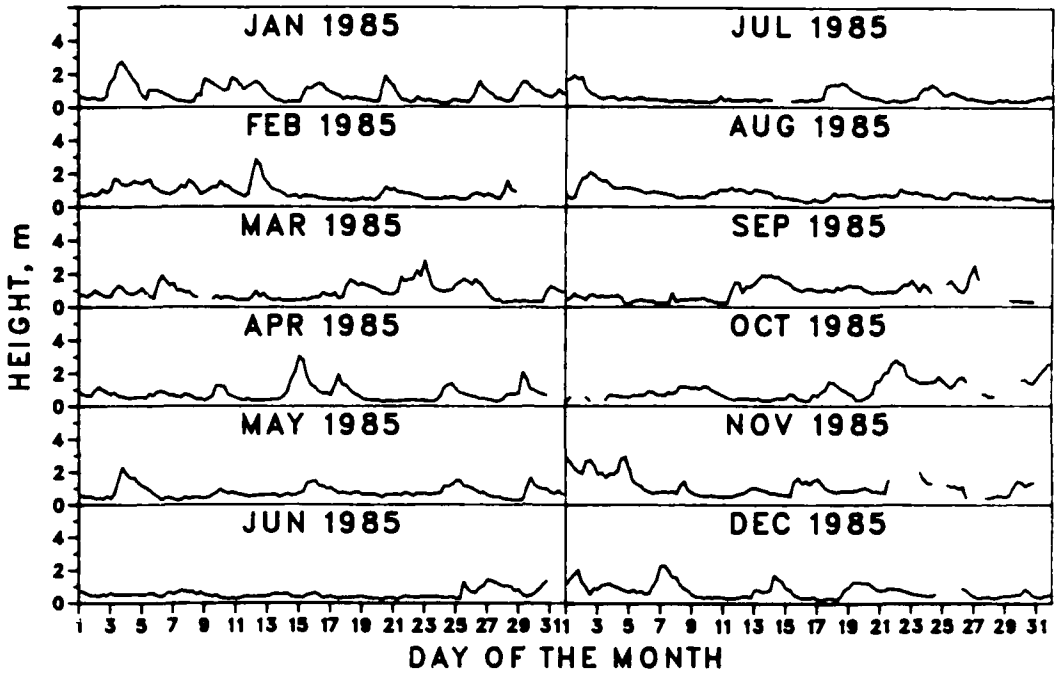
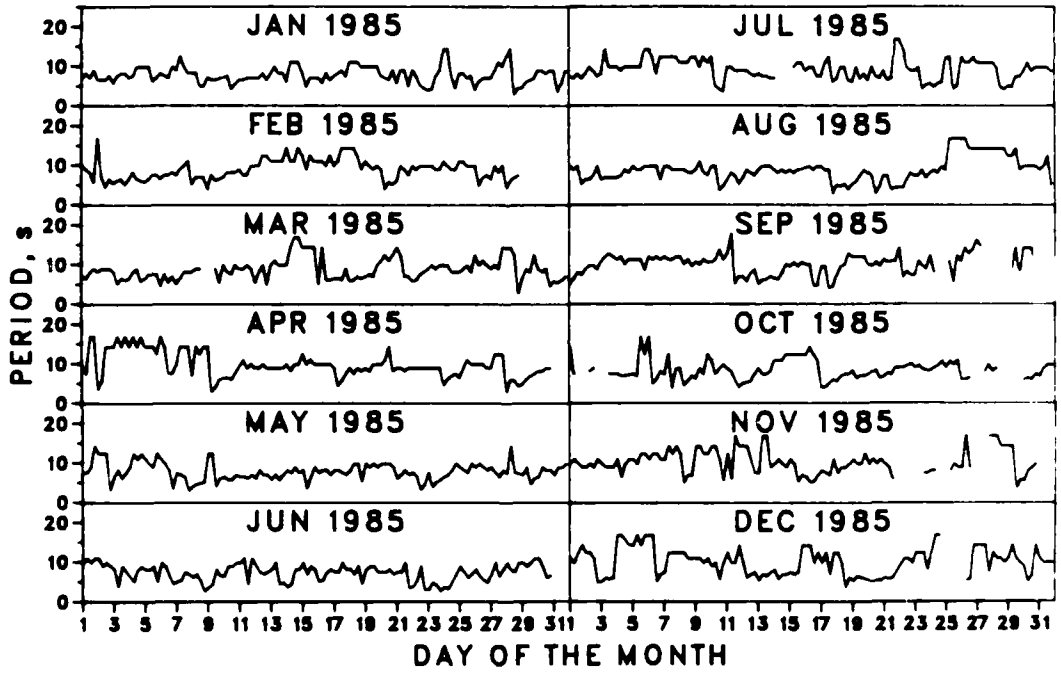
Table C1

Wave Gage Histories for 1985

Type of Gage	Location	Beginning of Proper Operation	End of Proper Operation	Explanation	Range m	Depth m	Distance from Shore
			Pier-End Staff (Gage 625)				
Continuous wire	Pier sta 19+00 (579 m ENE of baseline)	Nov 78	--		-6.3 to 7.0	8.2	475 m
			Offshore Buoy (Gage 630)				
Accelerometer buoy	6 km ENE of baseline	Nov 78	17 Dec 85	Removed by trawler	Continuous	18	5.9 km
		After 31 Dec 85					
			Nearshore Buoy (Gage 640)				
Accelerometer buoy	1 km ENE of baseline	Oct 84	25 Sep 85	Telemetry failure	Continuous	9	0.9 km
		1 Oct 85	--				
			Nearshore Staff (Gage 645)				
Continuous wire	Pier sta 6+20 (189 m ENE of baseline)	Nov 78	Oct 84	Gage 615 buried in sand	-1.5 to 7.0	2.1	100 m
		Terminated					
	Pier sta 7+80 (238 m ENE of baseline)	Nov 84	--		-2.5 to 7.0	3.5	135 m



a. Wave height



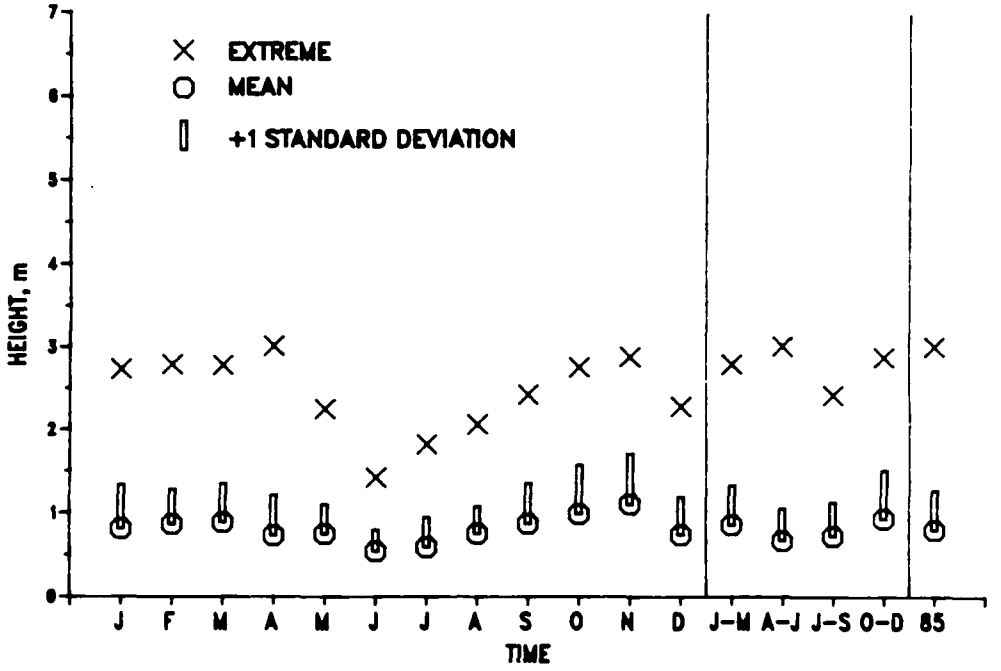
b. Wave period

Figure C1. Time-history of H_{mo} and T_p for Gage 625

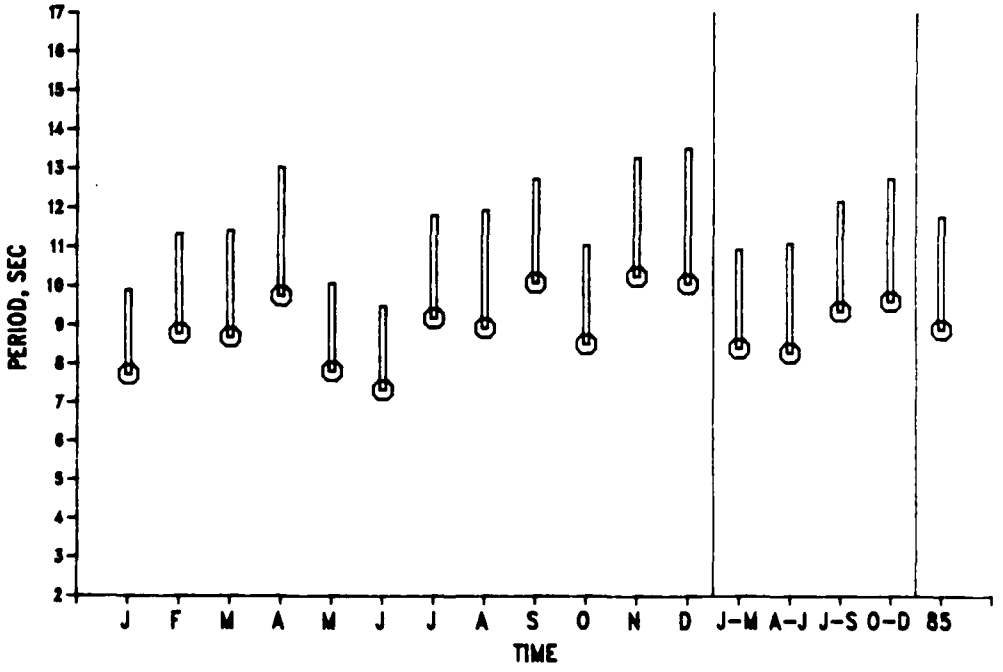
Table C2

1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 625

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	0.8	0.5	7.7	2.2	2.7	3	119
FEB	0.9	0.4	8.7	2.6	2.8	12	110
MAR	0.9	0.5	8.6	2.7	2.8	23	121
APR	0.7	0.5	9.7	3.3	3.0	15	117
MAY	0.7	0.4	7.7	2.3	2.3	3	123
JUN	0.5	0.3	7.2	2.2	1.4	27	115
JUL	0.6	0.4	9.1	2.6	1.8	1	120
AUG	0.7	0.3	8.8	3.0	2.1	2	122
SEP	0.9	0.5	10.0	2.7	2.4	27	110
OCT	1.0	0.6	8.4	2.5	2.8	22	105
NOV	1.1	0.6	10.2	3.1	2.9	4	106
DEC	0.7	0.5	10.0	3.5	2.3	7	112
JAN-MAR	0.8	0.5	8.3	2.5	2.8	FEB	350
APR-JUN	0.7	0.4	8.2	2.8	3.0	APR	355
JUL-SEP	0.7	0.4	9.3	2.8	2.4	SEP	352
OCT-DEC	0.9	0.6	9.5	3.2	2.9	NOV	323
ANNUAL	0.8	0.5	8.8	2.9	3.0	APR	1380



a. Wave height



b. Wave period

Figure C2. 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 625

Table C3

1985 Annual Joint Distribution of H_{mo} versus T_p for Gage 625

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49	58	65	116	109	196	275	790	514	457	341	391	7	3319
0 50 - 0 99	22	138	181	413	377	391	964	609	341	297	333		4066
1 00 - 1 49		7	101	355	384	130	275	203	145		101		1701
1 50 - 1 99				116	203	80	94	72	43	14	43		665
2 00 - 2 49				7	14	36		29	14	7	14		121
2 50 - 2 99							29	65	14		7		115
3 00 - 3 49											7		7
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	80	210	398	1000	1174	912	2152	1492	1014	659	896	7	

Table C4

1985 Seasonal Joint Distribution of H_{mo} versus T_p for Gage 625

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49	57	29	114	29	143	171	743	600	286	400	257		2829
0 50 - 0 99		114	229	343	457	486	1286	543	286	143	143		4030
1 00 - 1 49			114	543	743	57	286	143	143		29		2058
1 50 - 1 99				229	314	114	86	114			29		886
2 00 - 2 49					29	29							58
2 50 - 2 99							86	29			29		144
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	57	143	457	1144	1686	857	2487	1429	715	543	487	0	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	169	197	197	85	394	423	1380	423	225	225	282		4000
0.50 - 0.99	28	254	225	620	535	366	1127	620	85	310	225		4395
1.00 - 1.49			85	141	282	141	310	197	28		28		1212
1.50 - 1.99				85	28		28	28	56		28		253
2.00 - 2.49				28		28		28					84
2.50 - 2.99								28					28
3.00 - 3.49											28		28
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	197	451	507	959	1239	958	2845	1324	394	535	591	0	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			114	114	170	227	710	597	966	341	455	28	3722
0.50 - 0.99	57	114	199	256	199	341	909	909	511	284	284		4063
1.00 - 1.49			170	199	170	170	199	199	284		142		1533
1.50 - 1.99				28	313	114	57	28	28	57			625
2.00 - 2.49						28					28		56
2.50 - 2.99													
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	57	114	483	597	852	880	1875	1733	1789	682	909	28	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		31	31	217	62	279	279	433	341	402	588		2663
0.50 - 0.99		62	62	433	310	372	495	341	495	464	712		3746
1.00 - 1.49		31	31	557	341	155	310	279	124		217		2045
1.50 - 1.99				124	155	93	217	124	93		124		930
2.00 - 2.49					31	62		93	62	31	31		310
2.50 - 2.99							31	217	62				310
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	124	124	1331	899	961	1332	1487	1177	897	1672	0	

Table C5

1985 Monthly Joint Distribution of H_{mo} Versus T_p for Gage 625

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	84	84	336	84	336	504	1008	672	420	252	168		3948
0.50 - 0.99		168	336	252	336	336	1092	252	168				2940
1.00 - 1.49			168	420	1008		336	84					2016
1.50 - 1.99				84	504	168		84					840
2.00 - 2.49					84								84
2.50 - 2.99							168						168
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	84	252	840	840	2268	1008	2604	1092	588	252	168	0	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49							364	727	364	364	273		2092
0.50 - 0.99		182	182	91	455	818	1182	909	636	182	182		4819
1.00 - 1.49			91	727	636	91	273	91	273				2182
1.50 - 1.99				273	273	91					91		728
2.00 - 2.49													0
2.50 - 2.99								91			91		182
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	182	273	1091	1364	1000	1819	1818	1273	546	637	0	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	83				83		826	413	83	579	331		2398
0.50 - 0.99			165	661	579	331	1570	496	83	248	248		4381
1.00 - 1.49			83	496	579	83	248	248	165		83		1985
1.50 - 1.99				331	165	83	248	248					1075
2.00 - 2.49						83							83
2.50 - 2.99							83						83
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	83	0	248	1488	1406	580	2975	1405	331	827	662	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	171						2051	513	171	513	427		3846
0.50 - 0.99		171	256	256	85	342	855	684	85	940	598		4272
1.00 - 1.49			85	256	342	256	85	171					1195
1.50 - 1.99				85	85			85	85				340
2.00 - 2.49				85				85					170
2.50 - 2.99								85					85
3.00 - 3.49											85		85
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	171	171	341	682	512	598	2991	1623	341	1453	1110	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	81	163	163	81	569	325	325	163	81	163	407		2521
0.50 - 0.99		407	81	894	1138	569	1626	650			81		5446
1.00 - 1.49			81		244	163	650	244	81		81		1544
1.50 - 1.99				163			81		81		81		406
2.00 - 2.49						81							81
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	81	570	325	1138	1951	1138	2682	1057	243	163	650	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	261	435	435	174	609	957	1826	609	435				5741
0.50 - 0.99	87	174	348	696	348	174	870	522	174				3393
1.00 - 1.49			87	174	261		174	174					870
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	348	609	870	1044	1218	1131	2870	1305	609	0	0	0	

(Continued)

Table C5 (Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			333	167	417	583	1083	1000	1167	250	1000		6000
0.50 - 0.99		83	167	167	167	167	417	917	83	83	333		2584
1.00 - 1.49			83	417	167			250			83		1000
1.50 - 1.99					167	83	167						417
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	83	583	751	918	833	1667	2167	1250	333	1416	0	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				82			820	574		328	246		2050
0.50 - 0.99	164	246	328	410	328	656	1885	1230	82	574	410		6313
1.00 - 1.49			164	82	246	164	328	82					1066
1.50 - 1.99					410			82					492
2.00 - 2.49						82							82
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	164	246	492	574	984	902	3033	1968	82	902	656	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				91	91	91	182	182	1818	455	91	91	3092
0.50 - 0.99			91	182	91	182	364	545	1455	182	91		3183
1.00 - 1.49			273	91	91	364	273	273	909		364		2638
1.50 - 1.99				91	364	273			91	182			1001
2.00 - 2.49											91		91
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	364	455	637	910	819	1000	4273	819	637	91	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			95	286		667	571		286	190	476		2571
0.50 - 0.99		190	95	286	381	667	762	190	95		571		3237
1.00 - 1.49			95	381	381	286	381	381	286		95		2286
1.50 - 1.99				286	381	95	95	190	190				1237
2.00 - 2.49						95		190					285
2.50 - 2.99								381					381
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	190	285	1239	1143	1810	1809	1332	857	190	1142	0	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				189			94	94	94	189	566		1226
0.50 - 0.99					189	189	566	660	849	1038	755		4246
1.00 - 1.49		94		660	283	189	566	377			283		2452
1.50 - 1.99					94	189	566	189	94				1132
2.00 - 2.49					94			94	189				377
2.50 - 2.99							94	283	189				566
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	94	0	849	660	567	1886	1697	1415	1227	1604	0	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		89		179	179	179	179	1161	625	804	714		4109
0.50 - 0.99			89	982	357	268	179	179	536	357	804		3751
1.00 - 1.49				625	357			89	89		268		1428
1.50 - 1.99				89							357		446
2.00 - 2.49						89				89	89		267
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	89	89	1875	893	536	358	1429	1250	1250	2232	0	

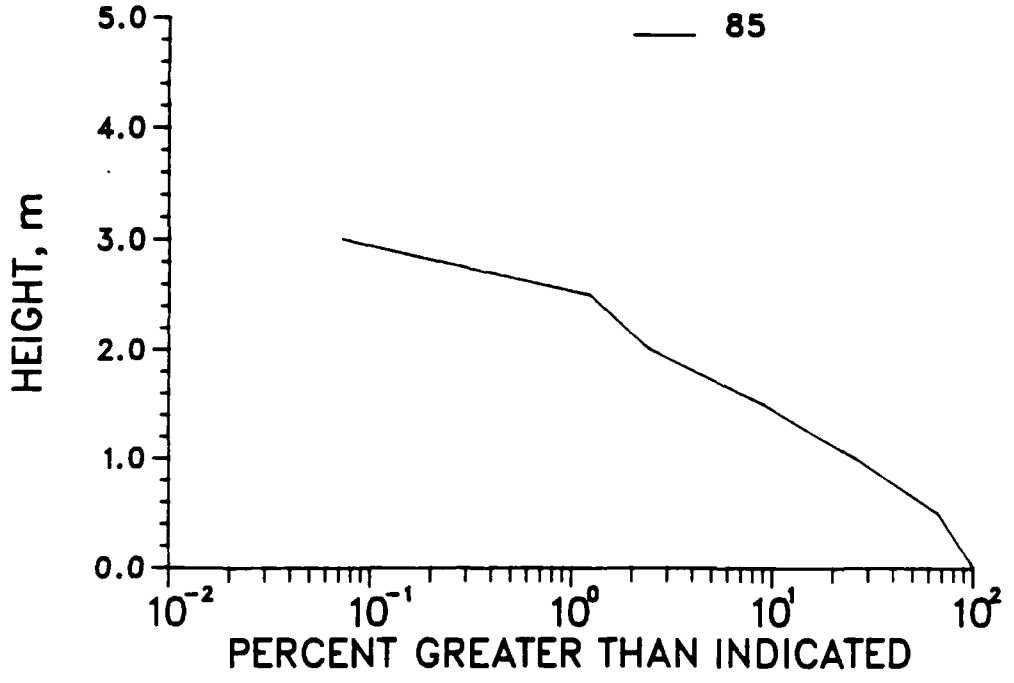


Figure C3. 1985 annual cumulative distribution of H_{mo} for Gage 625

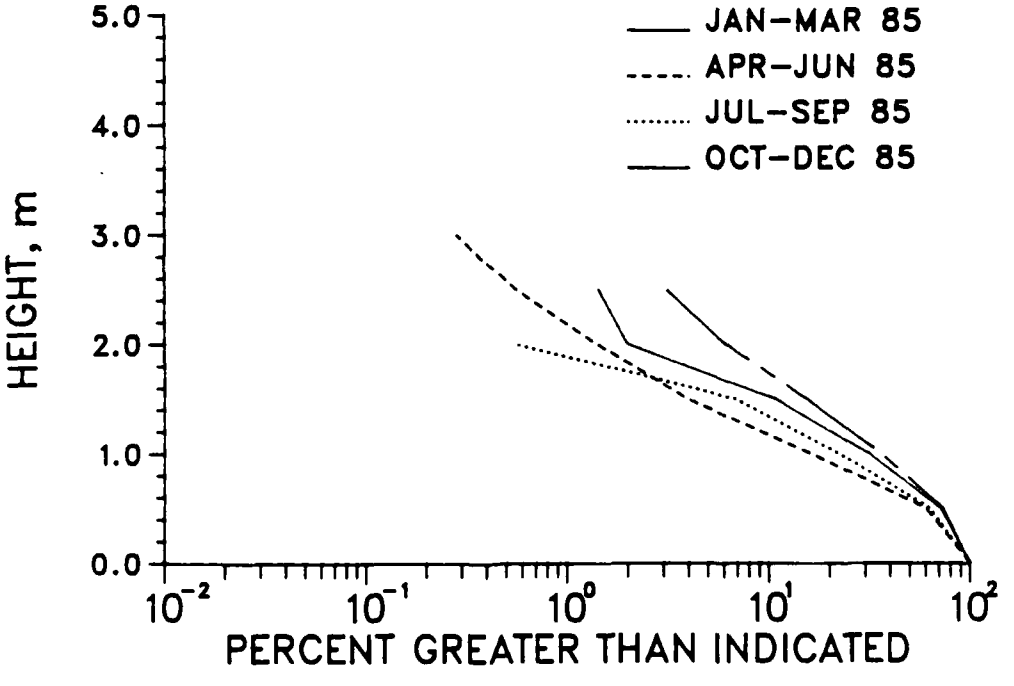


Figure C4. 1985 seasonal cumulative distribution of H_{mo} for Gage 625

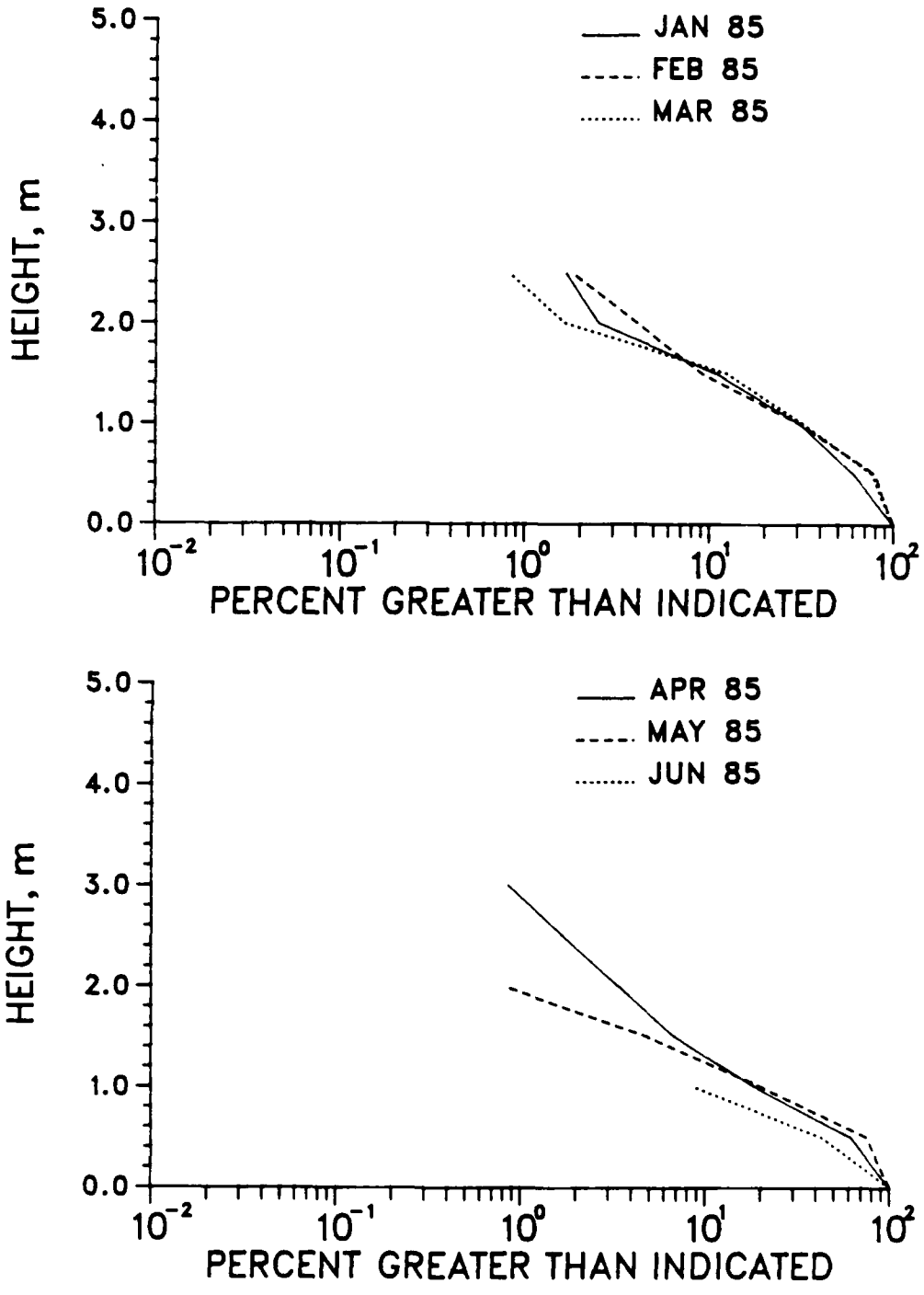
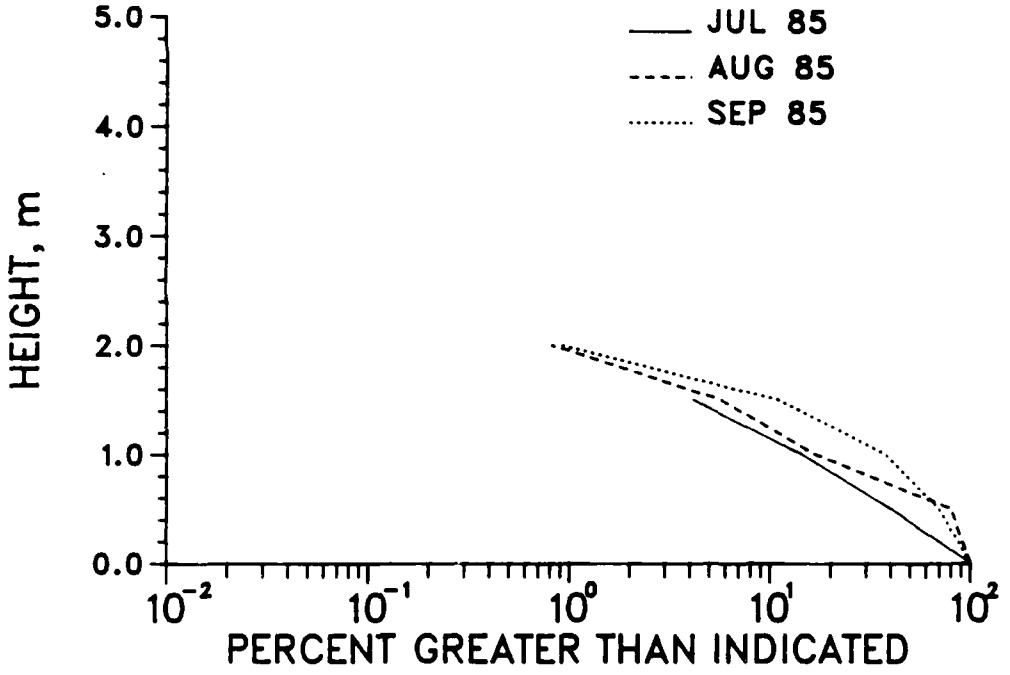


Figure C5. 1985 monthly cumulative distribution of H_{mo} for Gage 625 (Continued)



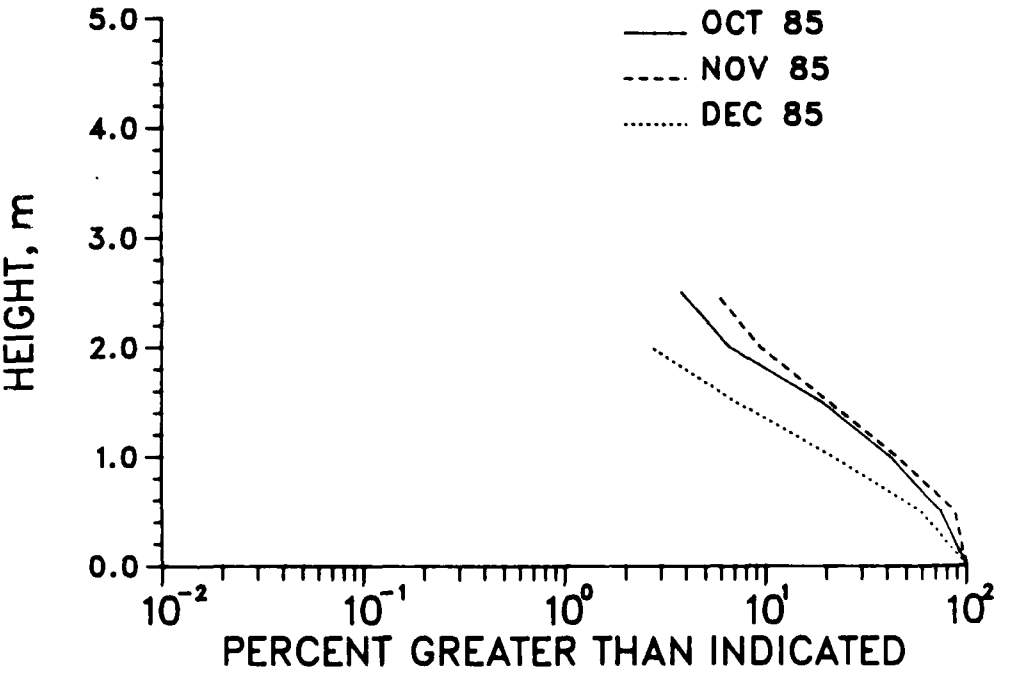


Figure C5. (Concluded)

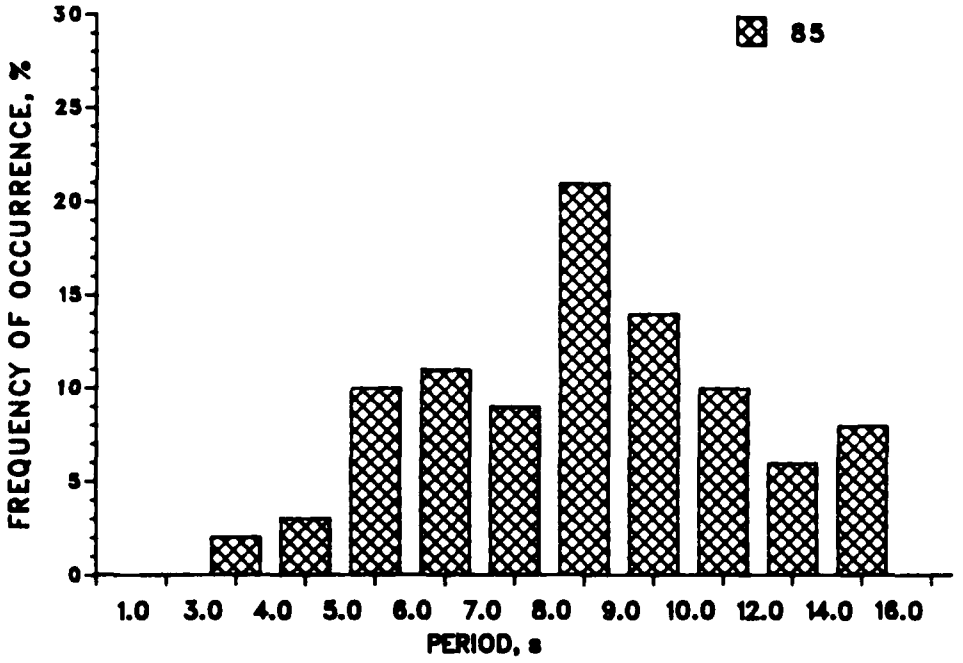


Figure C6. 1985 annual distribution of T_p for Gage 625

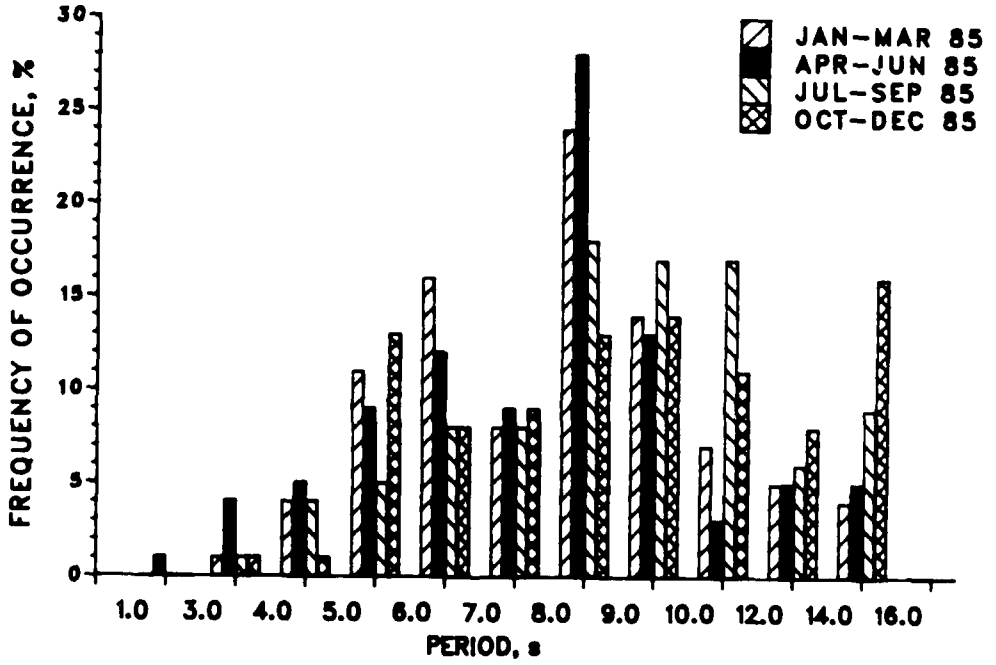
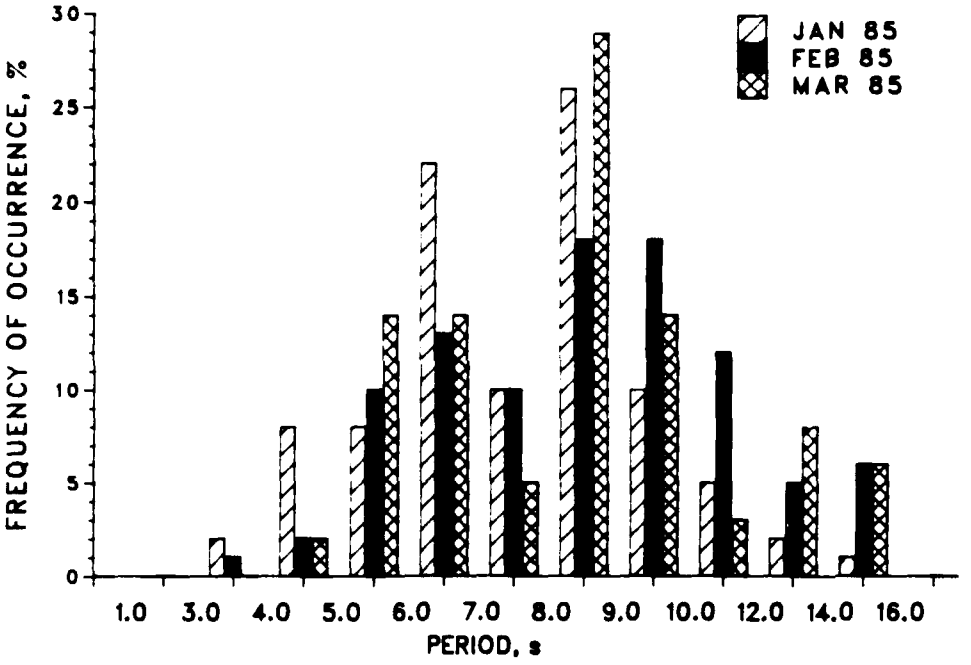


Figure C7. 1985 seasonal distribution of T_p for Gage 625



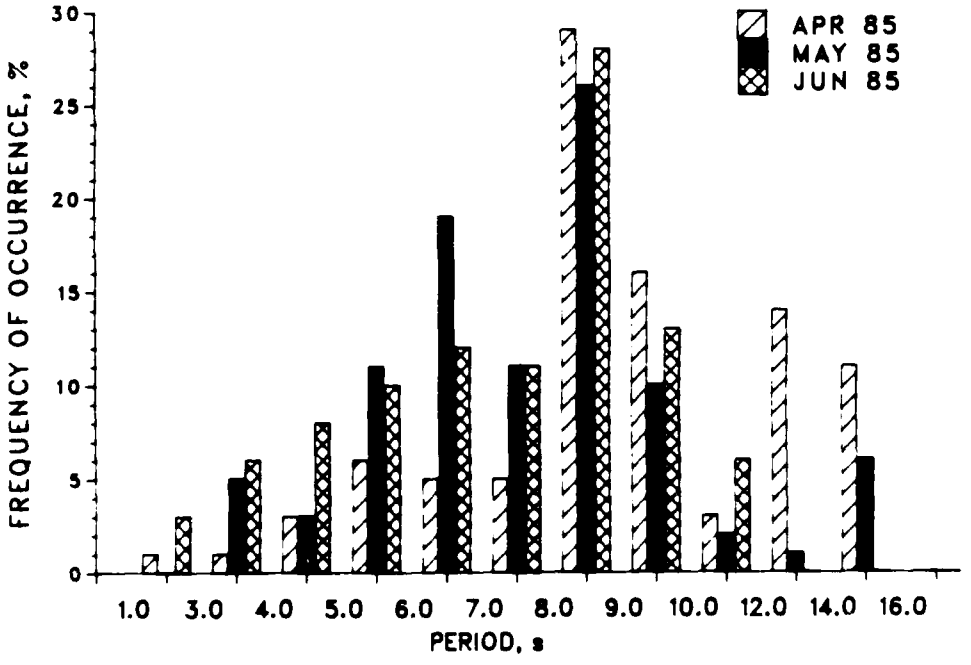


Figure C8. 1985 monthly distribution of T_p for Gage 625 (Continued)

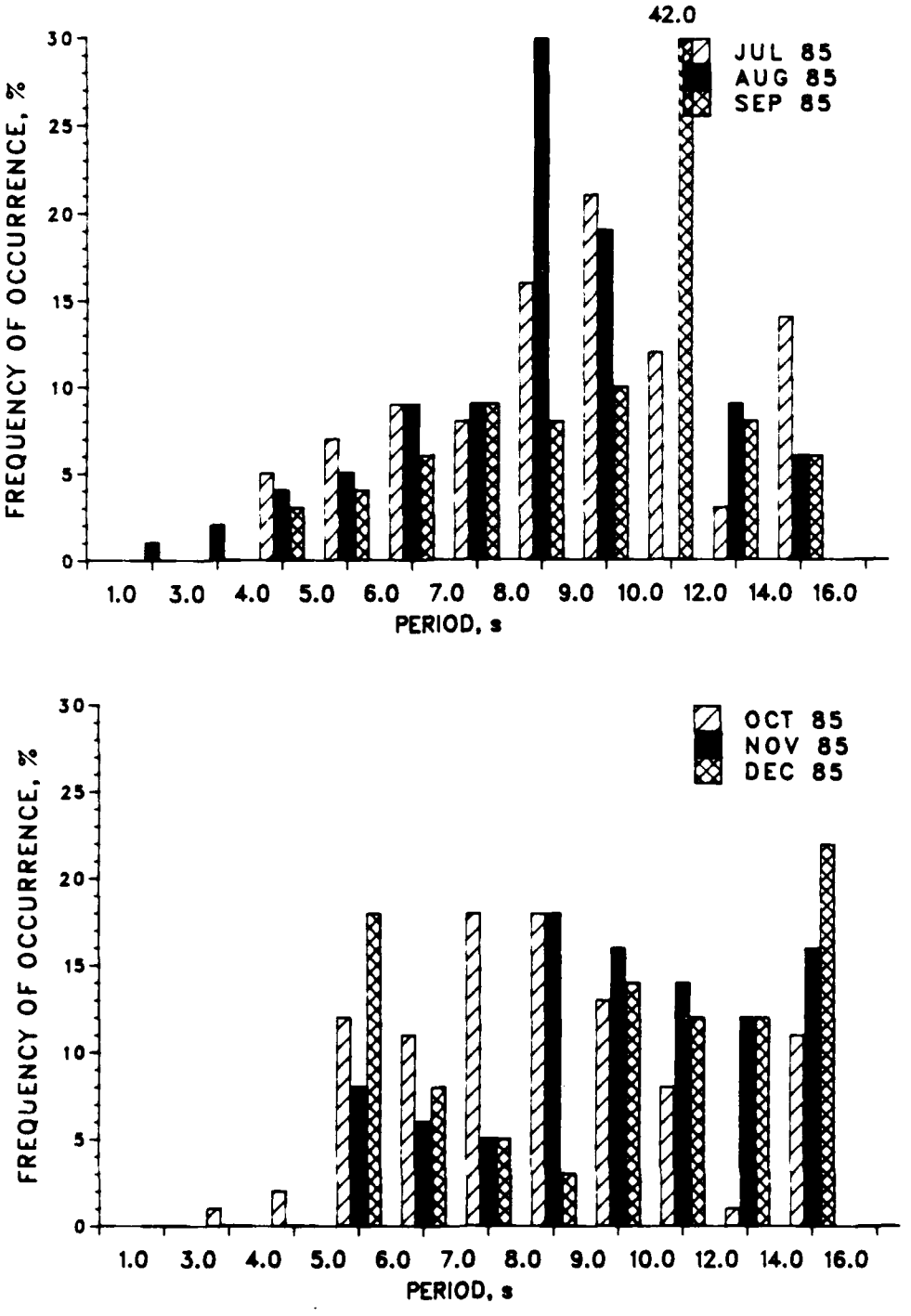


Figure C8. (Concluded)

Table C6

1985 Persistence of H_{mo} for Gage 625

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	36	31	29	26	20	18	16	15	14	13	12	10	8	7		5	4		3
1.0	44	33	22	14	10	8	6		3										
1.5	31	15	6	3	2		1												
2.0	13	6	1																
2.5	7	2	1																
3.0	1																		

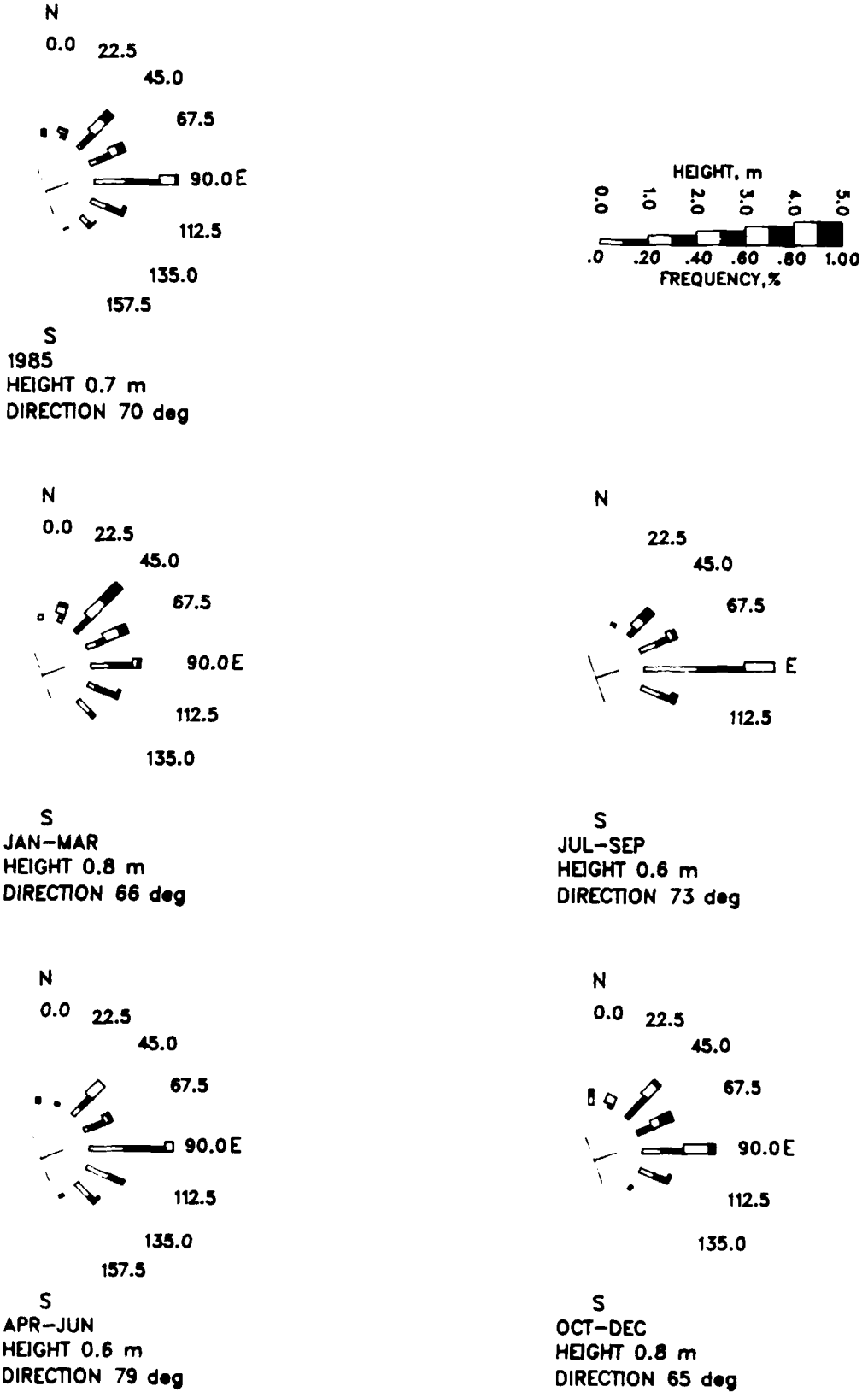
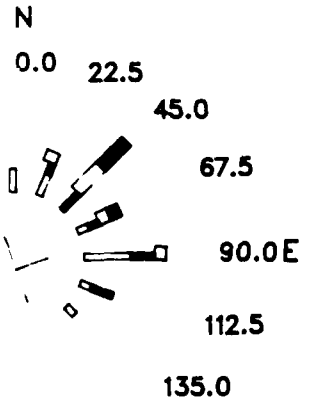
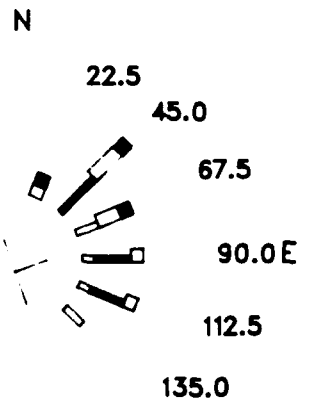


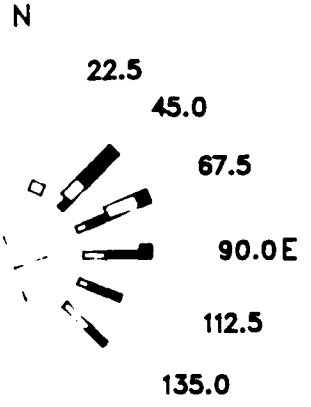
Figure C9. 1985 annual and seasonal wave roses



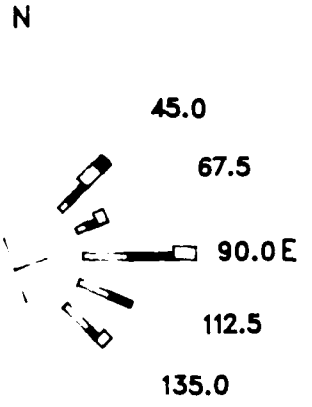
JANUARY
HEIGHT 0.7 m
DIRECTION 58 deg



FEBURARY
HEIGHT 0.8 m
DIRECTION 69 deg



MARCH
HEIGHT 0.8 m
DIRECTION 71 deg



APRIL
HEIGHT 0.7 m
DIRECTION 85 deg

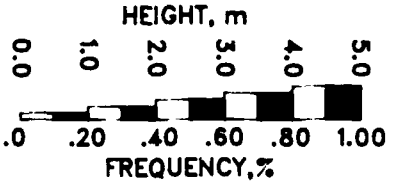
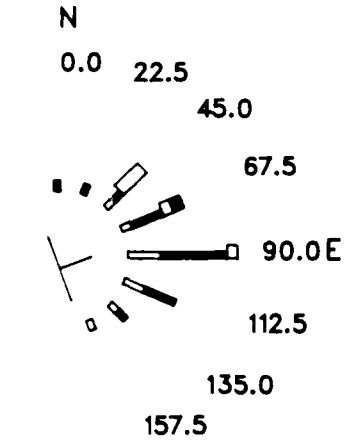
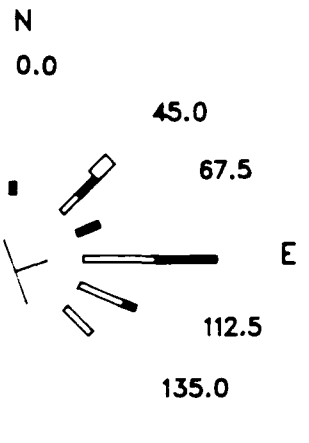


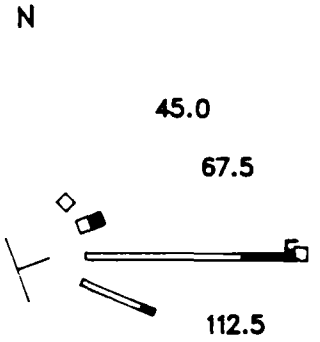
Figure C10. 1985 monthly wave roses (Sheet 1 of 3)



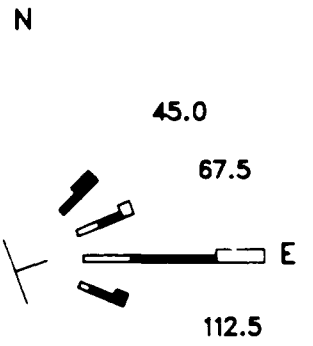
MAY
HEIGHT 0.6 m
DIRECTION 76 deg



JUNE
HEIGHT 0.4 m
DIRECTION 74 deg



JULY
HEIGHT 0.5 m
DIRECTION 79 deg



AUGUST
HEIGHT 0.7 m
DIRECTION 76 deg

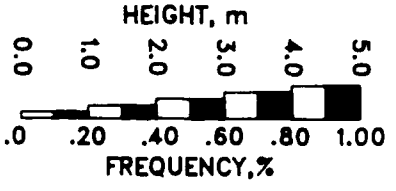
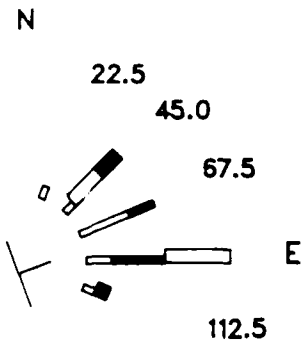
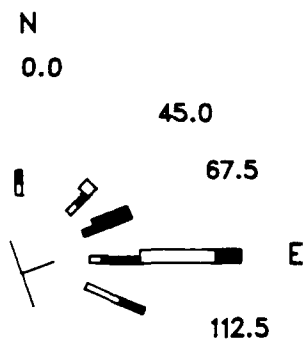


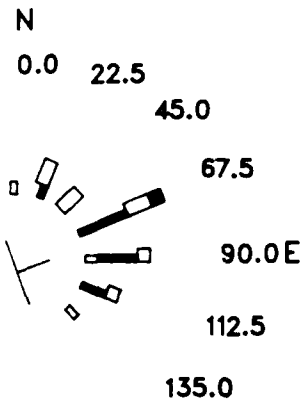
Figure C10. (Sheet 2 of 3)



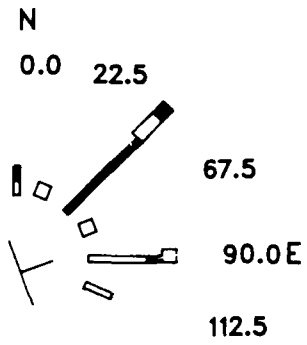
S
SEPTEMBER
HEIGHT 0.7 m
DIRECTION 66 deg



S
OCTOBER
HEIGHT 0.9 m
DIRECTION 80 deg



S
NOVEMBER
HEIGHT 0.9 m
DIRECTION 68 deg



S
DECEMBER
HEIGHT 0.6 m
DIRECTION 43 deg

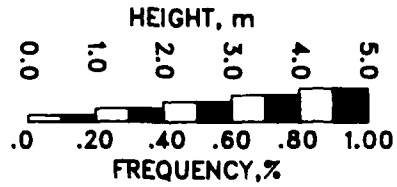
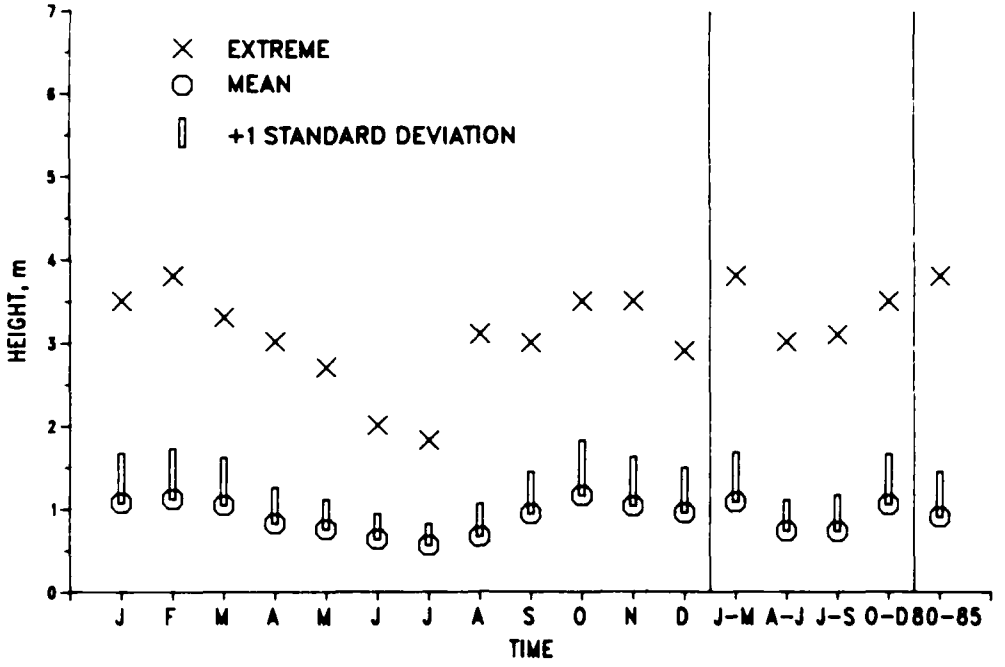


Figure C10. (Sheet 3 of 3)

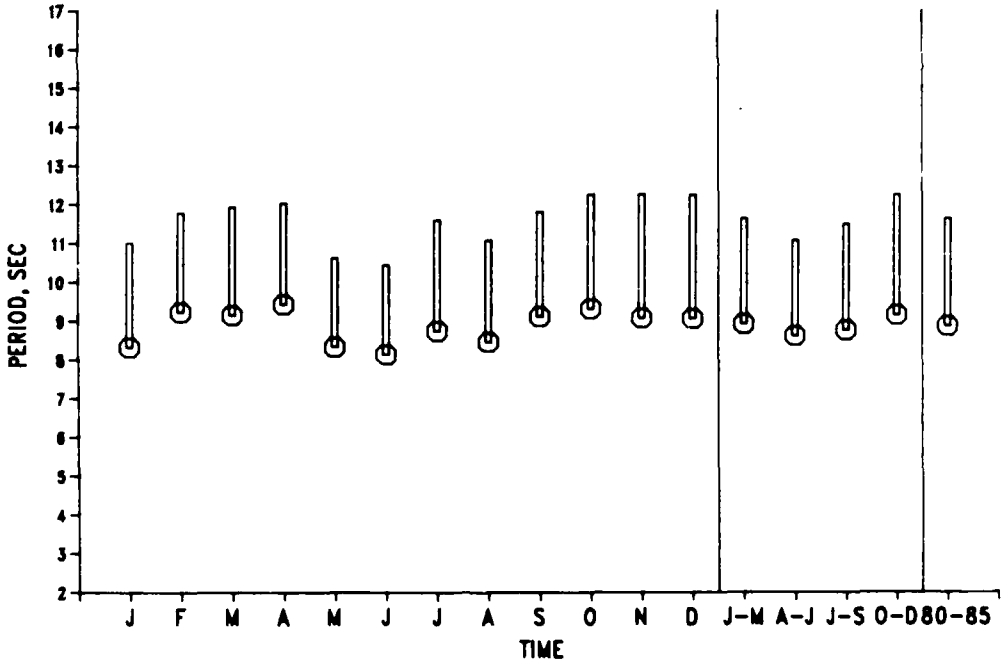
Table C7

1980 Through 1985 Mean, Standard Deviation and Extreme H_{mo} and T_p for Gage 625

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	1.1	0.6	8.3	2.7	3.5	83	584
FEB	1.1	0.6	9.2	2.6	3.8	83	592
MAR	1.0	0.6	9.1	2.8	3.3	83	652
APR	0.8	0.4	9.4	2.6	3.0	85	584
MAY	0.7	0.4	8.3	2.3	2.7	81	685
JUN	0.6	0.3	8.1	2.3	2.0	83	603
JUL	0.5	0.3	8.7	2.9	1.8	85	533
AUG	0.7	0.4	8.4	2.6	3.1	81	620
SEP	0.9	0.5	9.1	2.7	3.0	83	601
OCT	1.1	0.7	9.3	3.0	3.5	80	691
NOV	1.0	0.6	9.0	3.2	3.5	81	651
DEC	0.9	0.5	9.0	3.2	2.9	80	606
JAN-MAR	1.1	0.6	8.9	2.7	3.8	FEB 1983	1828
APR-JUN	0.7	0.4	8.6	2.5	3.0	APR 1985	1872
JUL-SEP	0.7	0.4	8.7	2.7	3.1	AUG 1981	1754
OCT-DEC	1.0	0.6	9.1	3.1	3.5	OCT 1981	1948
ANNUAL	0.9	0.5	8.8	2.8	3.8	FEB 1983	7402



a. Wave height



b. Wave period

Figure C11. 1980 through 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 625

Table C8

1980 Through 1985 Annual Joint Distribution of

H_{mo} versus T_p for Gage 625

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	11	24	38	51	112	205	345	388	428	218	227	19	2066
0.50 - 0.99	4	70	242	372	493	442	593	713	1017	238	311	45	4540
1.00 - 1.49		1	62	273	409	259	173	178	427	51	177	4	2014
1.50 - 1.99			3	62	196	134	55	62	142	54	99	8	815
2.00 - 2.49				1	30	46	24	41	74	51	62	3	332
2.50 - 2.99					4	15	23	27	41	20	45	3	178
3.00 - 3.49							4	4	16	9	12		45
3.50 - 3.99									4	1	4		9
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	15	95	345	759	1244	1101	1217	1413	2149	642	937	82	

Table C9

1980 Through 1985 Seasonal Joint Distribution of

H_{mo} versus T_p for Gage 625

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	11	16	27	33	71	71	191	186	257	126	137		1126
0.50 - 0.99		88	213	361	427	356	547	498	1089	159	356	11	4105
1.00 - 1.49			77	339	531	284	181	191	667	55	306		2631
1.50 - 1.99				93	241	197	71	115	246	93	142	5	1203
2.00 - 2.49					33	82	33	44	126	104	115		537
2.50 - 2.99					5	11	44	22	93	55	82		312
3.00 - 3.49							11	5	38	11	11		76
3.50 - 3.99									5		5		10
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	11	104	317	826	1308	1001	1078	1061	2521	603	1154	16	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	32	48	59	48	224	288	625	427	417	150	182	5	2505
0.50 - 0.99	5	101	267	379	438	529	929	1111	1181	208	230	21	5399
1.00 - 1.49			43	139	235	230	214	182	390	32	107		1572
1.50 - 1.99				43	69	37	37	43	91	5	75		400
2.00 - 2.49				5	11	16	5	11	32	5	5	5	95
2.50 - 2.99						11		5	5				21
3.00 - 3.49											5		5
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	37	149	369	614	977	1111	1810	1779	2116	400	604	31	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		23	40	51	131	342	473	787	735	359	268	51	3260
0.50 - 0.99	11	68	245	353	644	570	593	770	758	257	205	57	4531
1.00 - 1.49			46	228	331	205	171	165	251	29	86		1512
1.50 - 1.99				51	148	97	40	40	51	29	29		485
2.00 - 2.49					6	17	6	11	17	11	46		114
2.50 - 2.99						6	11	17	29		17		80
3.00 - 3.49								6	11				17
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	11	91	331	683	1260	1237	1294	1796	1852	685	651	108	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		10	26	72	26	128	103	180	323	241	318	21	1448
0.50 - 0.99		26	241	390	472	323	313	483	1027	323	441	87	4126
1.00 - 1.49		5	82	380	534	313	128	175	395	87	205	15	2319
1.50 - 1.99			10	62	318	200	72	51	175	87	144	26	1145
2.00 - 2.49					67	67	51	92	118	82	82	5	564
2.50 - 2.99					10	31	36	62	36	26	77	10	288
3.00 - 3.49							5	5	15	26	31		82
3.50 - 3.99									10	5	10		25
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	41	359	904	1427	1062	708	1048	2099	877	1308	164	

Table C10

1980 Through 1985 Monthly Joint Distribution of

H_{mo} versus T_p for Gage 625

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	17	51	86	51	137	137	291	223	291	86	103		1473
0.50 - 0.99	.	154	308	411	411	257	411	342	873	205	342	17	3731
1.00 - 1.49	.	.	68	479	822	240	188	154	514	.	103		2568
1.50 - 1.99	.	.	.	51	274	342	51	154	240	34	51		1197
2.00 - 2.49	.	.	.	.	51	154	17	68	205	86	137		718
2.50 - 2.99	.	.	.	.	17	17	51	34	51	51	51		272
3.00 - 3.49	.	.	.	.	.	.	.	17	.	.	.		17
3.50 - 3.99	.	.	.	.	.	.	.	.	17	.	.		17
4.00 - 4.49	.	.	.	.	.	.	.	.	.	.	.		0
4.50 - 4.99	.	.	.	.	.	.	.	.	.	.	.		0
5.00 - GREATER	.	.	.	.	.	.	.	.	.	.	.		0
TOTAL	17	205	462	992	1712	1147	1009	992	2191	462	787	17	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	.	.	.	17	34	51	84	169	236	118	118		827
0.50 - 0.99	.	51	101	236	372	355	574	659	1436	68	304	17	4173
1.00 - 1.49	.	.	68	270	439	270	186	203	794	101	236		2567
1.50 - 1.99	.	.	.	152	321	135	68	118	270	152	152		1368
2.00 - 2.49	.	.	.	.	17	68	34	68	101	118	152		558
2.50 - 2.99	.	.	.	.	.	.	34	34	135	34	169		406
3.00 - 3.49	.	.	.	.	.	.	.	.	68	.	17		85
3.50 - 3.99	.	.	.	.	.	.	.	.	.	.	17		17
4.00 - 4.49	.	.	.	.	.	.	.	.	.	.	.		0
4.50 - 4.99	.	.	.	.	.	.	.	.	.	.	.		0
5.00 - GREATER	.	.	.	.	.	.	.	.	.	.	.		0
TOTAL	0	51	169	675	1183	879	980	1251	3040	591	1165	17	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	15	.	.	31	46	31	199	169	245	169	184		1089
0.50 - 0.99	.	61	230	429	491	445	644	491	966	199	414		4370
1.00 - 1.49	.	.	92	276	353	337	169	215	690	61	552		2745
1.50 - 1.99	.	.	.	77	138	123	92	77	230	92	215	15	1059
2.00 - 2.49	.	.	.	.	31	31	46	.	77	107	61		353
2.50 - 2.99	.	.	.	.	.	15	46	.	92	77	31		261
3.00 - 3.49	.	.	.	.	.	.	31	.	46	31	15		123
3.50 - 3.99	.	.	.	.	.	.	.	.	.	.	.		0
4.00 - 4.49	.	.	.	.	.	.	.	.	.	.	.		0
4.50 - 4.99	.	.	.	.	.	.	.	.	.	.	.		0
5.00 - GREATER	.	.	.	.	.	.	.	.	.	.	.		0
TOTAL	15	61	322	813	1059	982	1227	952	2346	736	1472	15	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	34	17	17	17	86	86	565	308	394	240	308		2072
0.50 - 0.99		34	154	171	188	411	582	822	1764	360	479	17	4982
1.00 - 1.49			103	205	342	342	86	171	531	68	205		2053
1.50 - 1.99				34	103	51	51	103	171	17	120		650
2.00 - 2.49				17	17		17	17	103				171
2.50 - 2.99						34		17					51
3.00 - 3.49											17		17
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	34	51	274	444	736	924	1301	1438	2963	685	1129	17	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	15	29	44	29	219	263	438	423	350	117	175		2102
0.50 - 0.99		146	292	467	672	569	1212	1226	934	102	175	15	5810
1.00 - 1.49			15	88	219	248	336	204	365	29	102		1606
1.50 - 1.99				73	73	15	58	29	44		73		365
2.00 - 2.49					15	29		15		15	15	15	104
2.50 - 2.99									15				15
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	15	175	351	657	1198	1124	2044	1897	1708	263	540	30	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	50	100	116	100	365	514	896	547	514	100	66	17	3385
0.50 - 0.99	17	116	348	481	415	597	945	1260	896	182	50	33	5340
1.00 - 1.49			17	133	149	100	199	166	282		17		1063
1.50 - 1.99				17	33	50			66		33		199
2.00 - 2.49						17							17
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	67	216	481	731	962	1278	2040	1973	1758	282	166	50	

(Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		56	113	94	188	525	713	1220	994	432	413	38	4786
0.50 - 0.99		94	281	338	675	600	525	788	498	356	94	131	4370
1.00 - 1.49			56	225	225	94	56	56			19		731
1.50 - 1.99					38	38	38						114
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	150	450	657	1126	1257	1332	2064	1482	788	526	169	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		16	16	48	194	452	613	919	677	371	242	16	3564
0.50 - 0.99	32	97	242	468	710	774	887	823	468	210	210	48	4969
1.00 - 1.49			32	177	274	194	177	32	32				918
1.50 - 1.99				32	145	48	16	16	16	16	32		321
2.00 - 2.49					16	16			32		81		145
2.50 - 2.99							16	16	16				48
3.00 - 3.49								16	16				32
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	32	113	290	725	1339	1484	1709	1822	1257	597	565	64	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				17	17	67	116	266	566	283	166	100	1598
0.50 - 0.99		17	216	250	549	333	349	699	1298	216	300		4227
1.00 - 1.49			50	283	483	316	266	399	699	83	233		2812
1.50 - 1.99				116	250	200	67	100	133	67	50		983
2.00 - 2.49						33	17	33	17	33	50		183
2.50 - 2.99						17	17	33	67		50		184
3.00 - 3.49									17				17
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	17	266	666	1299	966	832	1530	2797	682	849	100	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49			14	43		145	174	130	304	72	203	29	1114
0 50 - 0 99		43	174	246	362	275	333	449	1216	275	376	58	3807
1 00 - 1 49			72	362	434	289	101	188	535	101	275	29	2386
1 50 - 1 99			29	101	318	116	58	72	260	101	232	43	1330
2 00 - 2 49					101	101	87	159	130	101	72	14	765
2 50 - 2 99					29	43	58	72	43	29	116	29	419
3 00 - 3 49							14			58	58		130
3 50 - 3 99									29	14			43
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	43	289	752	1244	969	825	1070	2517	751	1332	202	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49			46	123	15	138	77	138	230	292	384		1443
0 50 - 0 99		31	323	353	568	430	399	476	737	415	492	46	4270
1 00 - 1 49		15	92	292	661	353	184	184	323	138	154	15	2411
1 50 - 1 99				31	276	230	123	46	92	138	92	31	1059
2 00 - 2 49					46	31	46	15	77	92	108		415
2 50 - 2 99						15	46	61	31	46	61		260
3 00 - 3 49								15	46	15	31		107
3 50 - 3 99											31		31
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	46	461	799	1566	1197	875	935	1536	1136	1353	92	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49		33	17	50	66	99	50	281	446	380	380	33	1835
0 50 - 0 99			231	594	495	264	198	528	1122	281	462	165	4340
1 00 - 1 49			83	495	512	297	99	149	314	17	182		2148
1 50 - 1 99				50	363	264	33	33	165	17	99		1024
2 00 - 2 49					50	66	17	99	149	50	66		497
2 50 - 2 99						33		50	33		50		166
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	33	331	1189	1486	1023	397	1140	2229	745	1239	198	

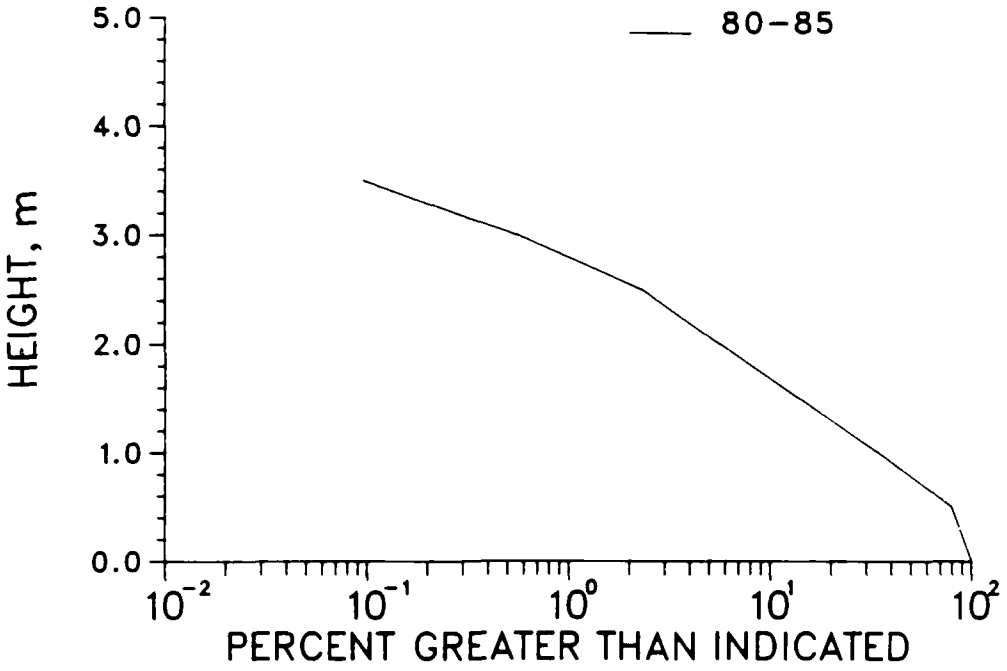


Figure C12. 1980 through 1985 annual cumulative distribution of H_{mo} for Gage 625

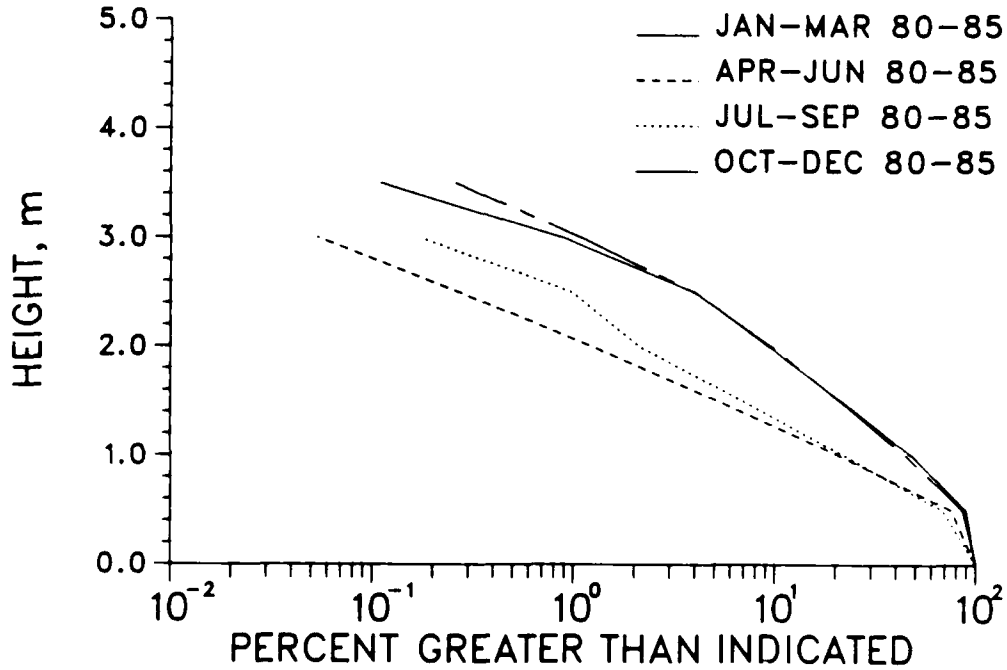


Figure C13. 1980 through 1985 seasonal cumulative distribution of H_{mo} for Gage 625

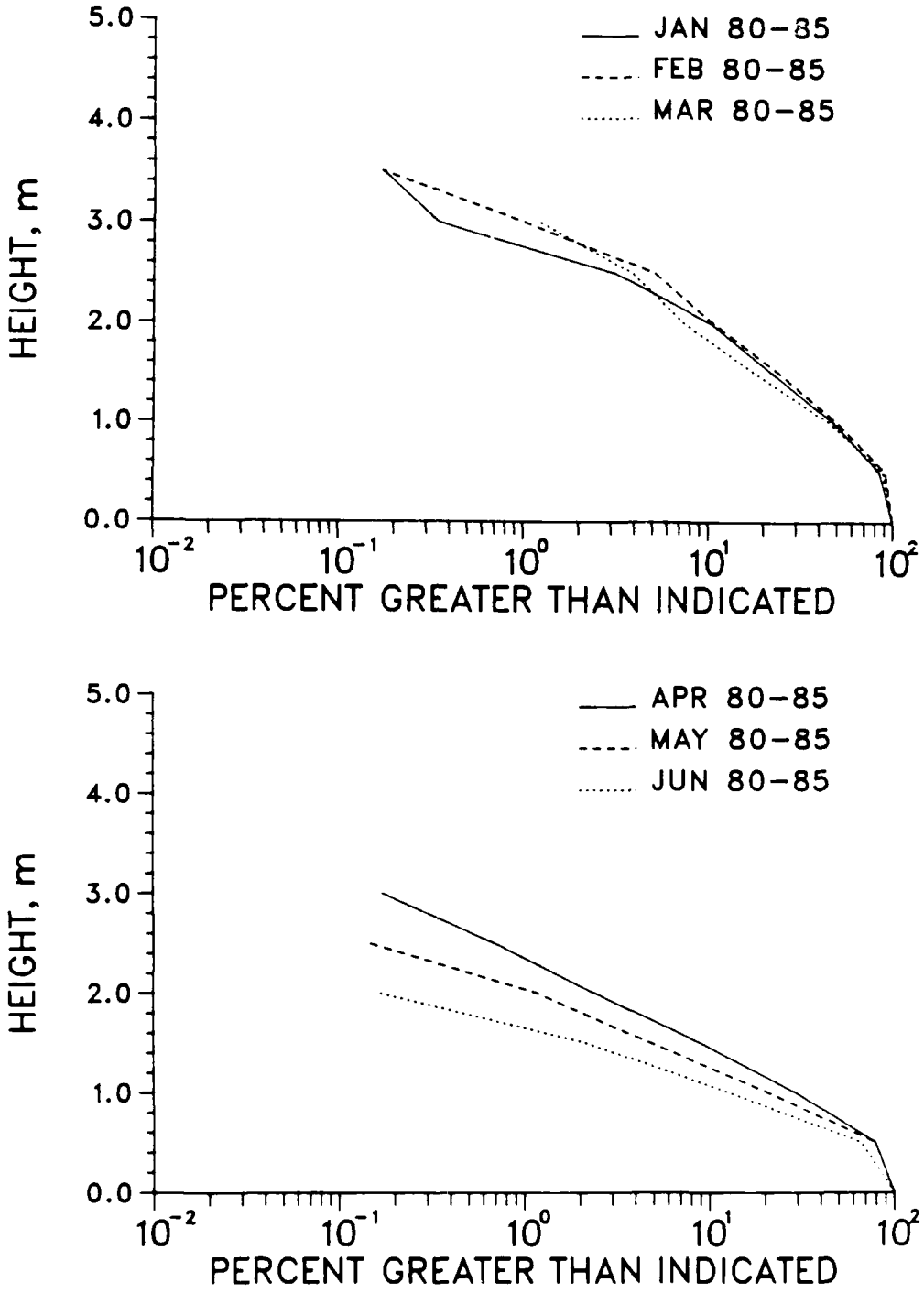


Figure C14. 1980 through 1985 monthly cumulative distribution of H_{mo} for Gage 625 (Continued)

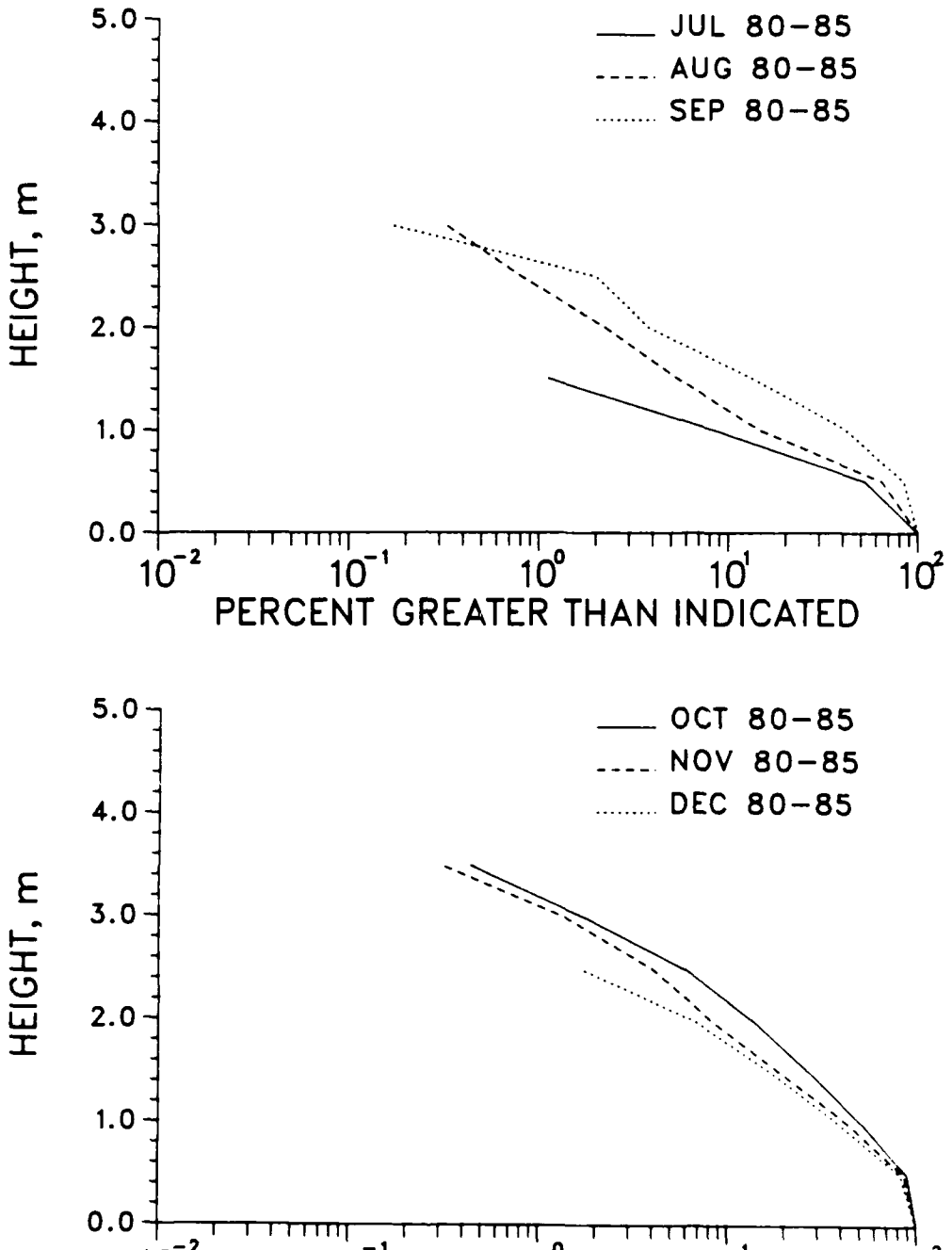


Figure C14. (Concluded)

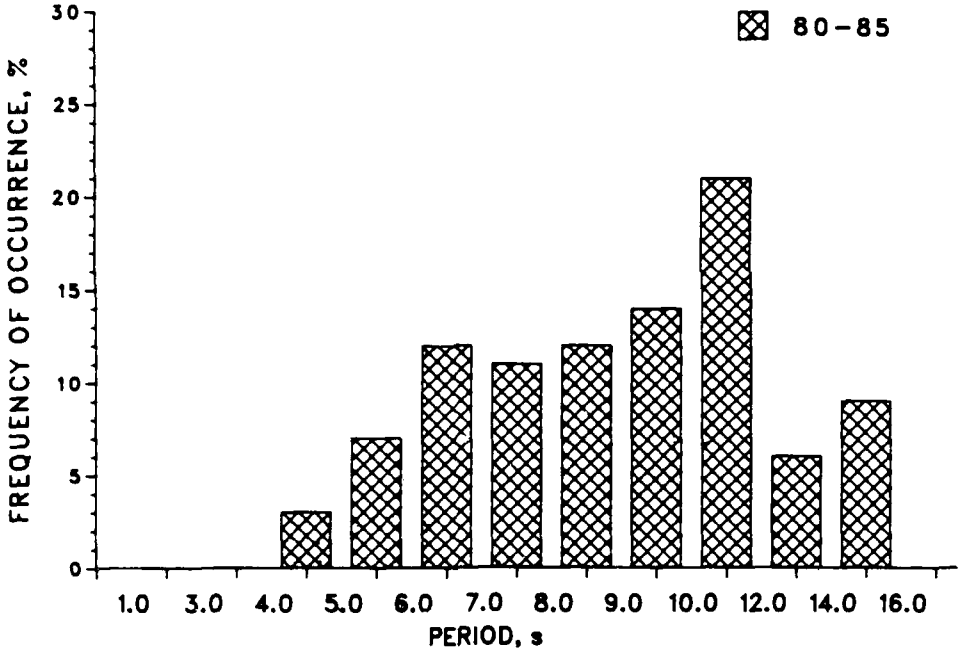


Figure C15. 1980 through 1985 annual distribution of T_p for Gage 625

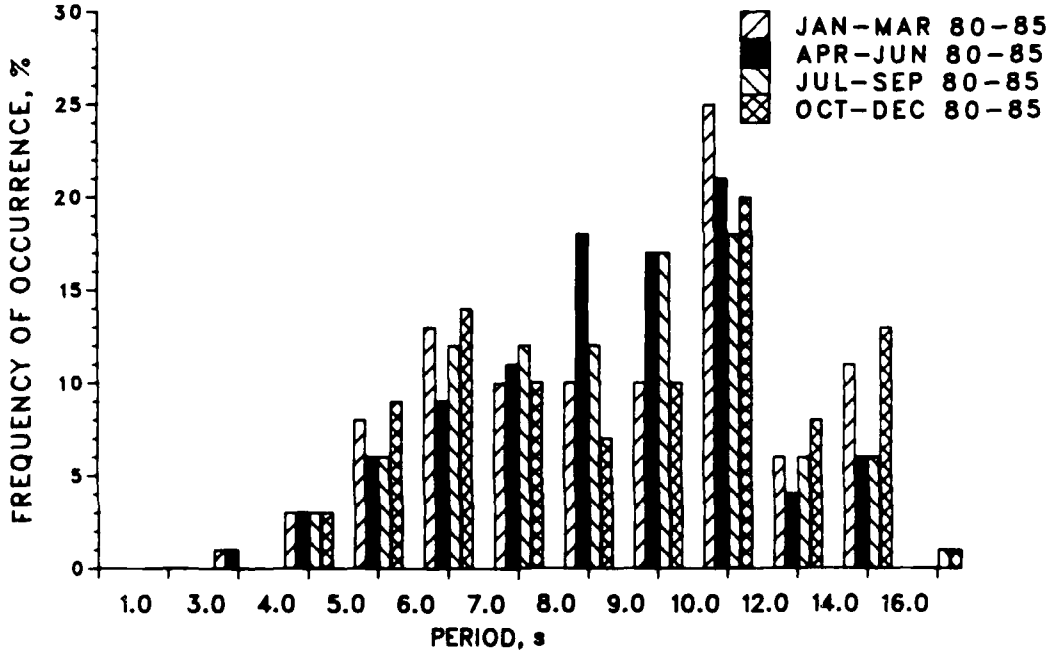
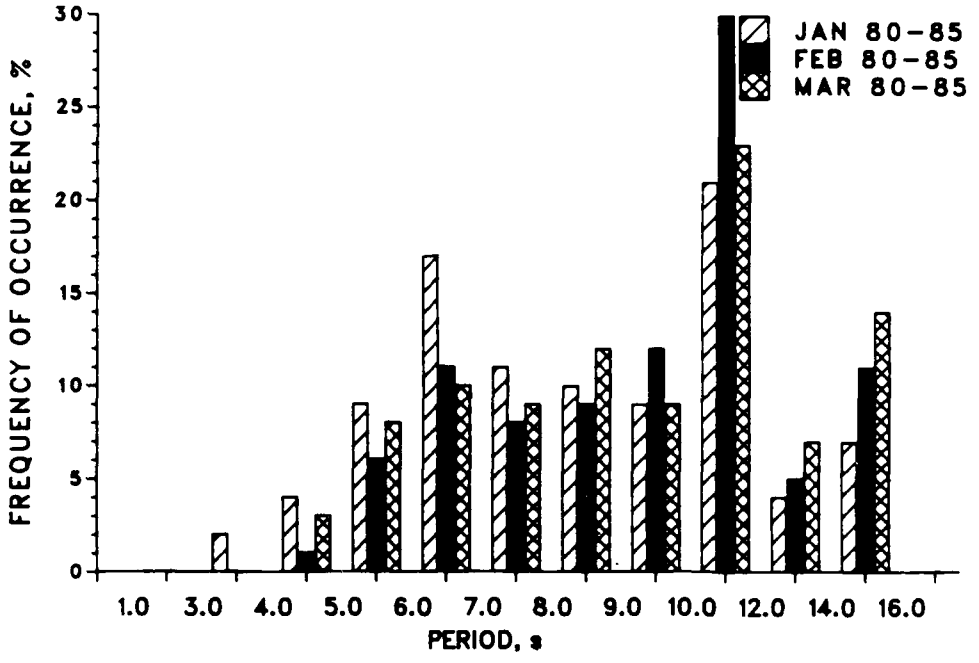


Figure C16. 1980 through 1985 seasonal distribution of T_p for Gage 625



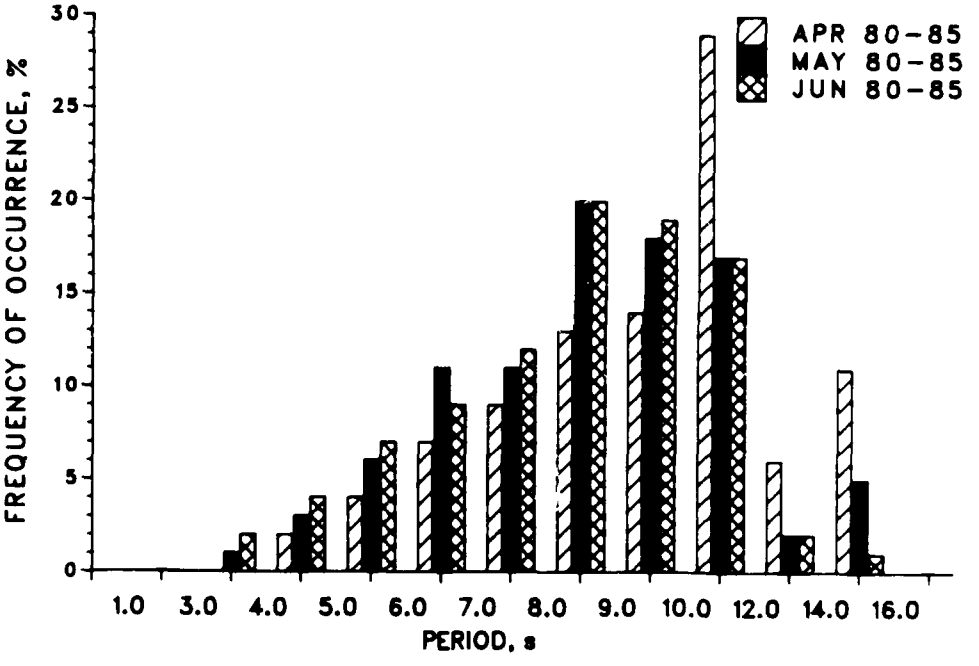
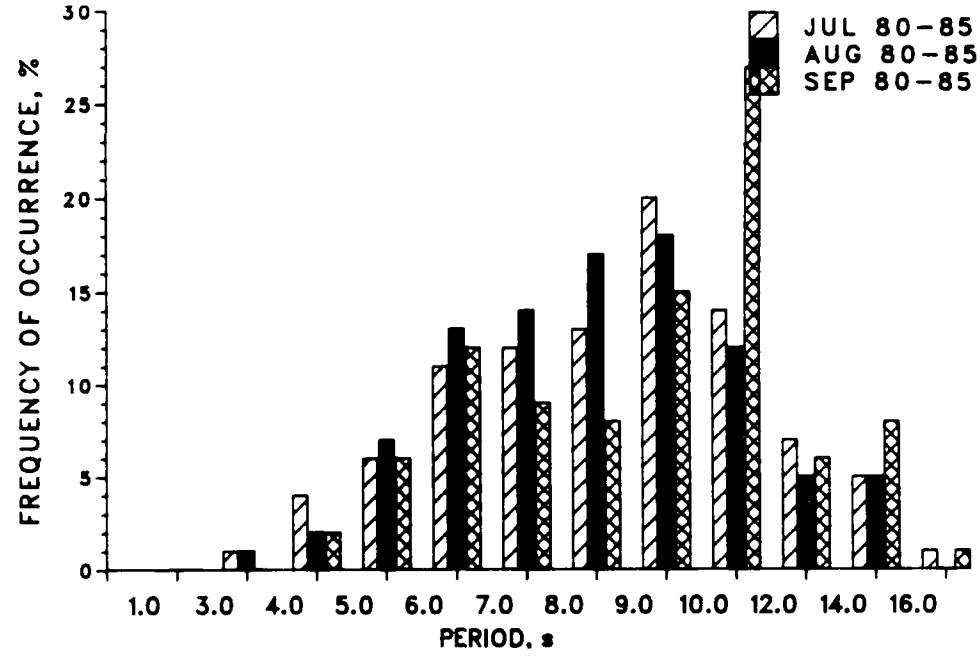


Figure C17. 1980 through 1985 monthly distribution of T_p for Gage 625 (Continued)



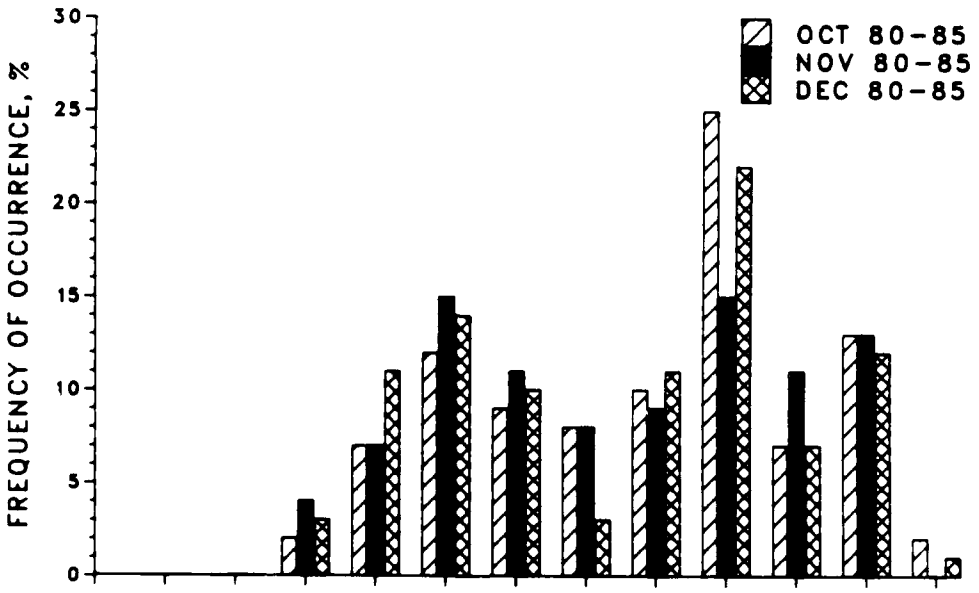


Figure C17. (Concluded)

Table C11

1980 Through 1985 Persistence of H_{mo} for Gage 625

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	29	24	22	19		15	13	12	10			8				6			4
1.0	46	32	23	16	11	9			4										
1.5	31	18	9	6	5	3													
2.0	16	9	5	3															
2.5	10	5	2																
3.0	3																		
3.5	2																		

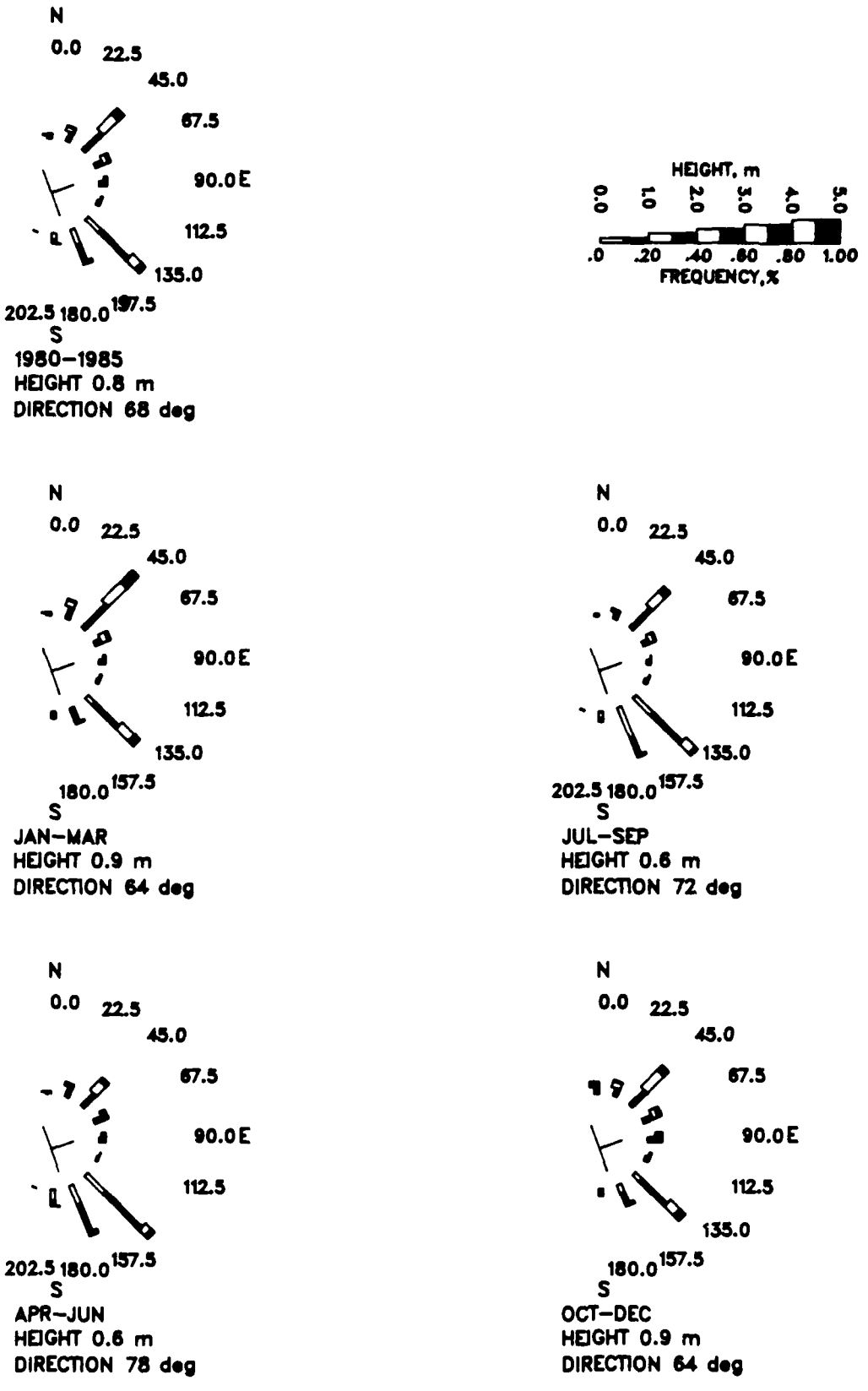


Figure C18. 1980 through 1985 annual and seasonal wave roses

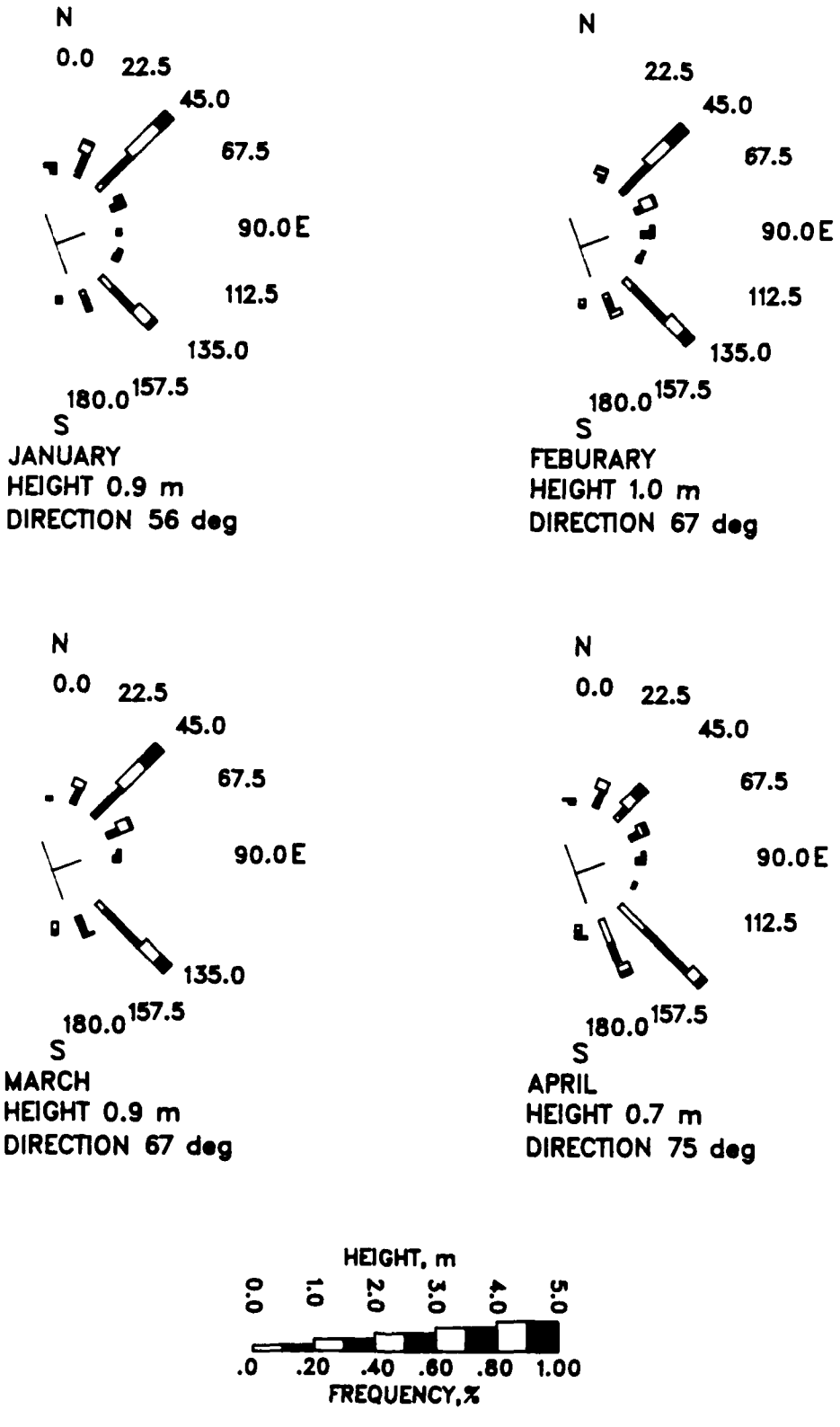
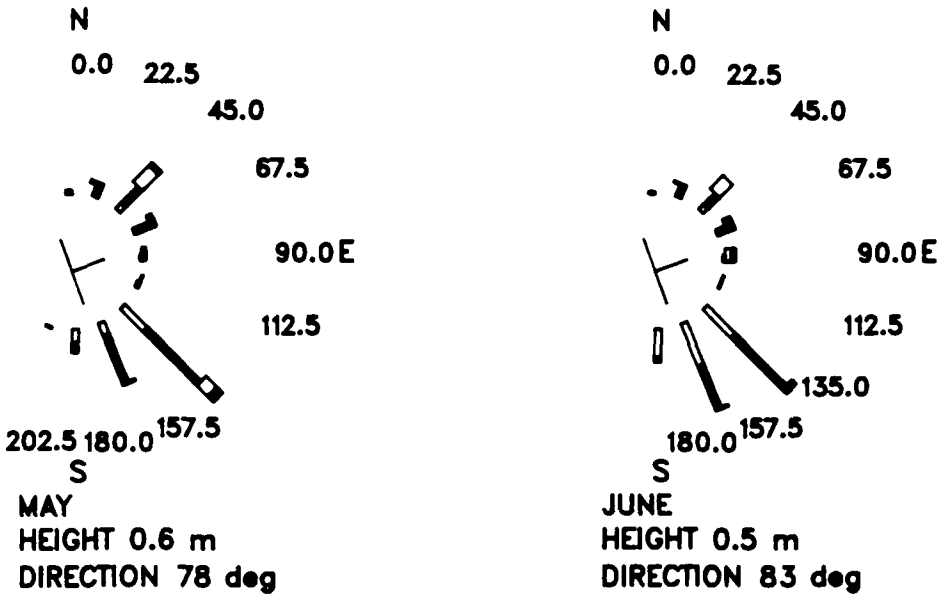
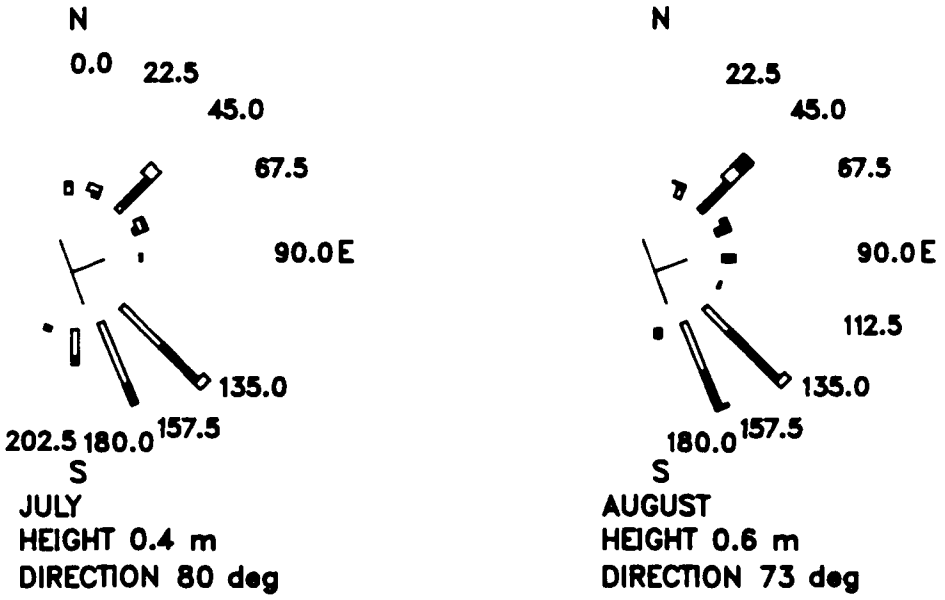


Figure C19. 1980 through 1985 monthly wave roses
(Sheet 1 of 3)





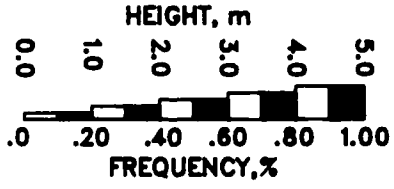


Figure 19. (Sheet 2 of 3)

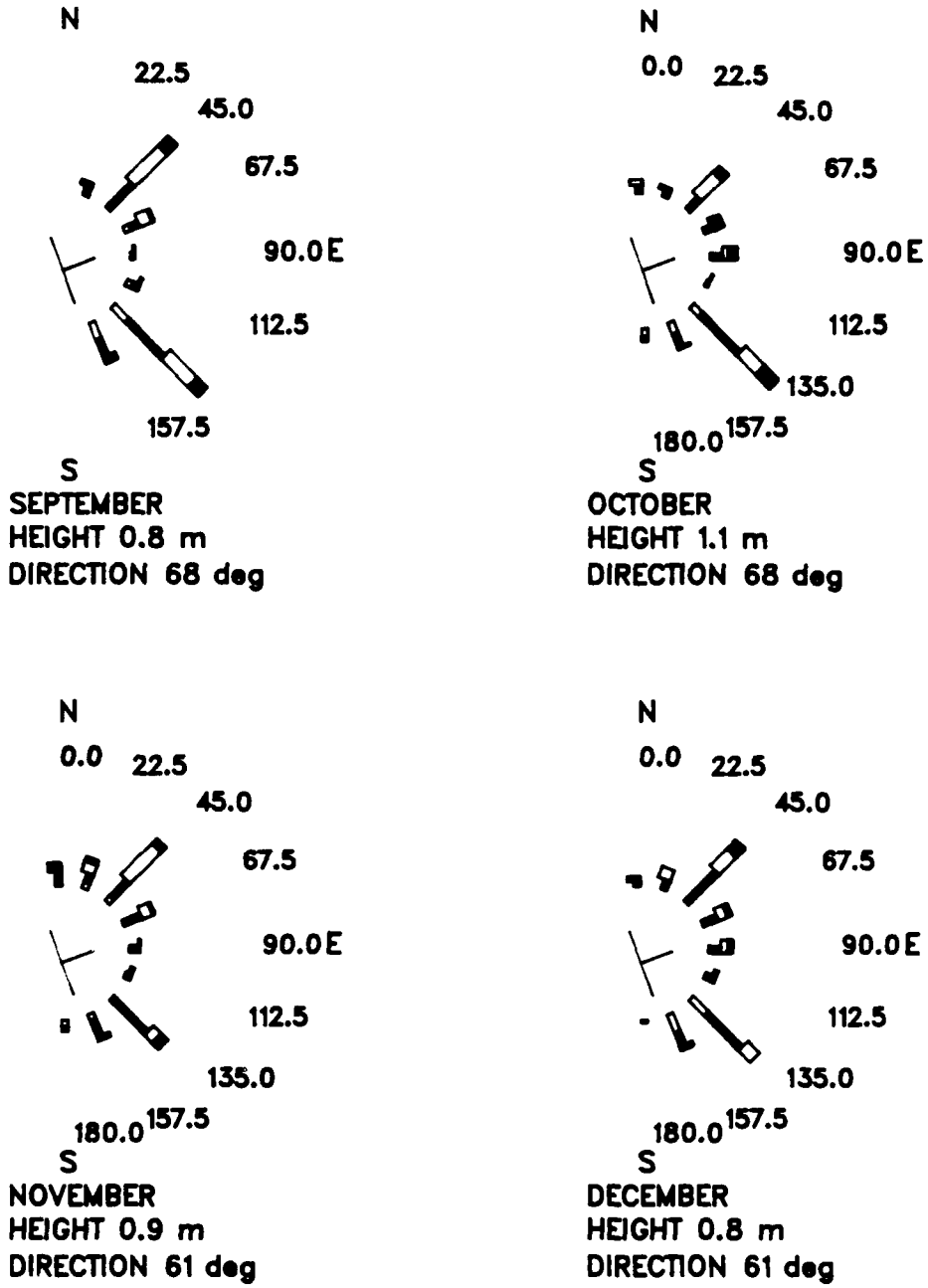


Figure 19. (Sheet 3 of 3)

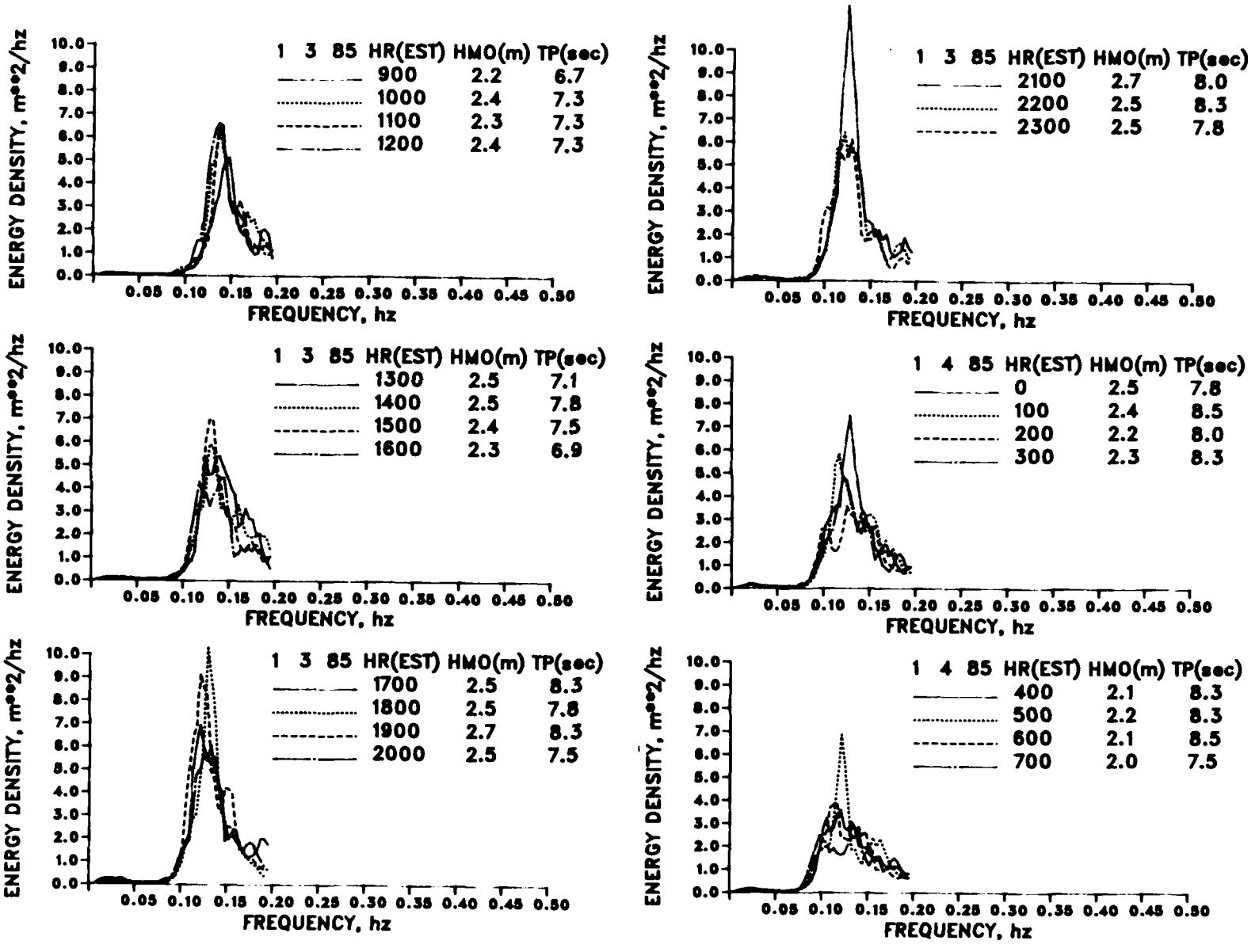


Figure C20. Spectra for waves >2 m, Gage 625 (Sheet 1 of 15)

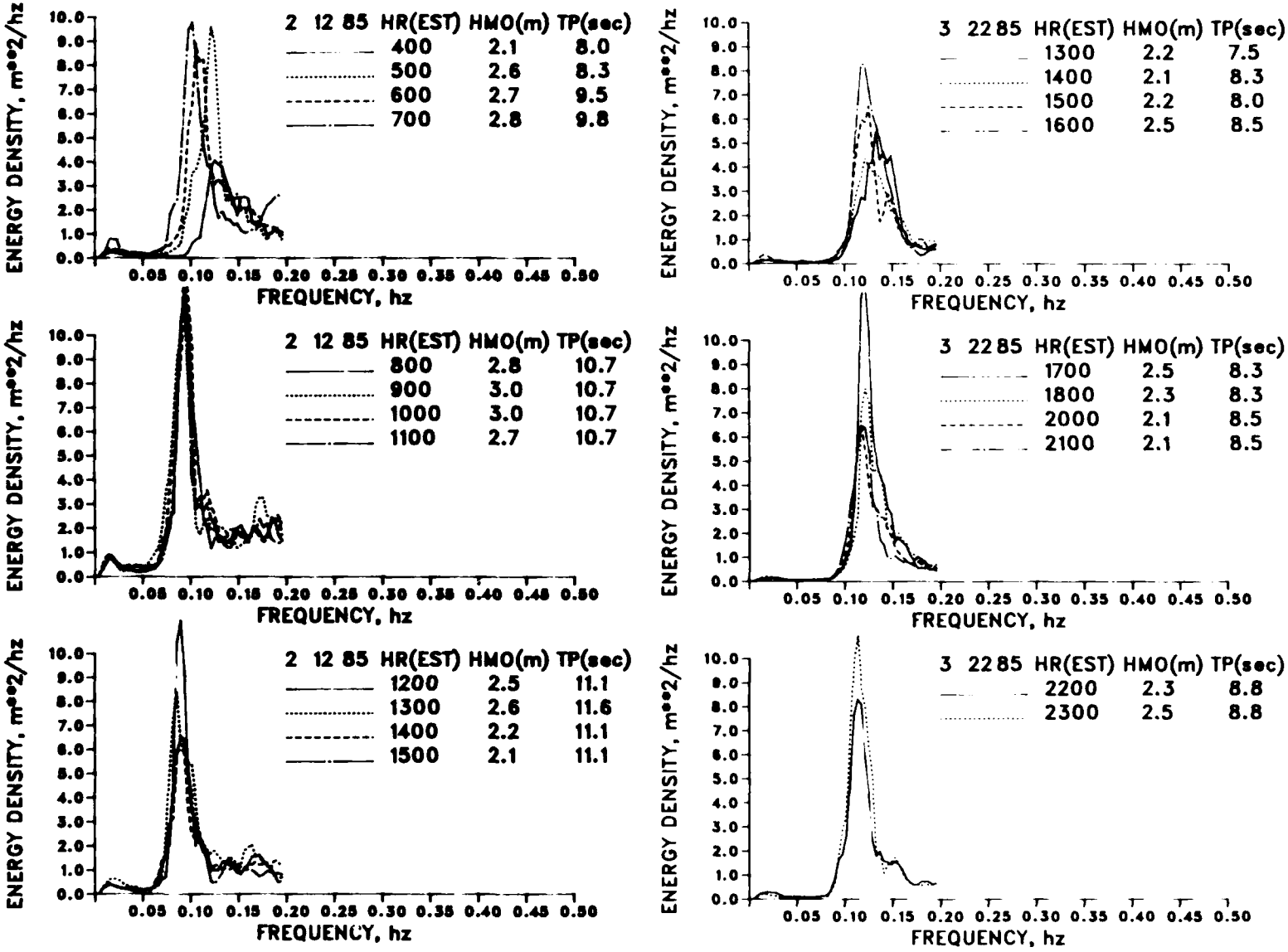


Figure C20. (Sheet 2 of 15)

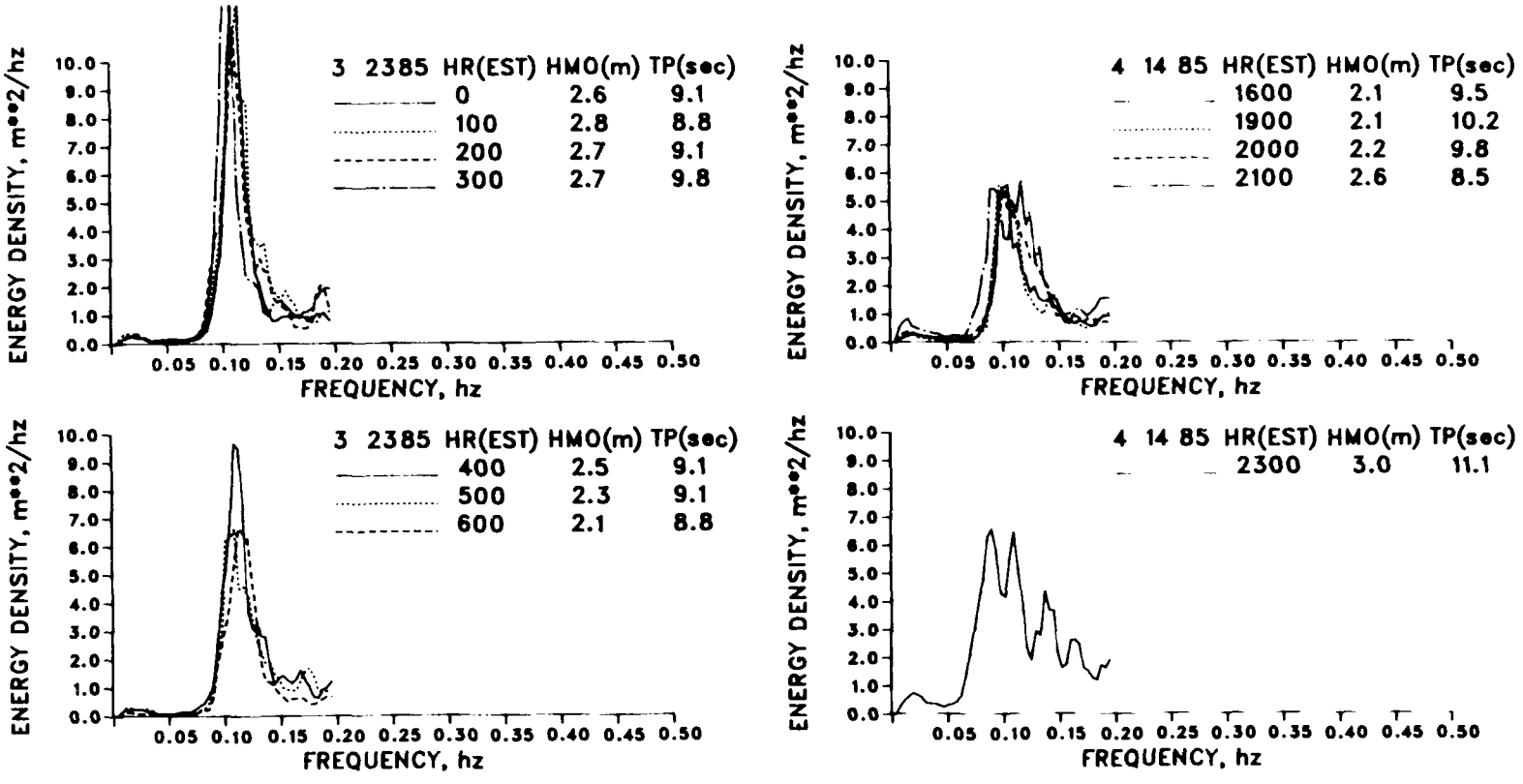
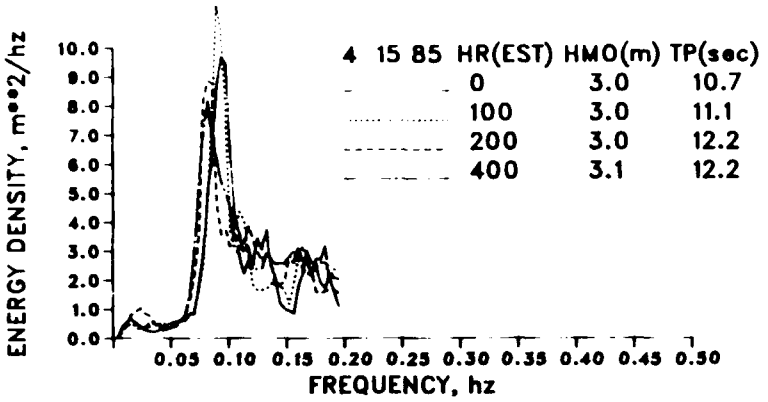
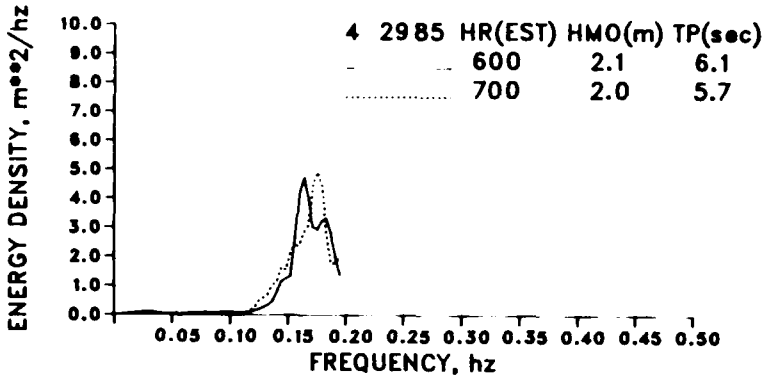
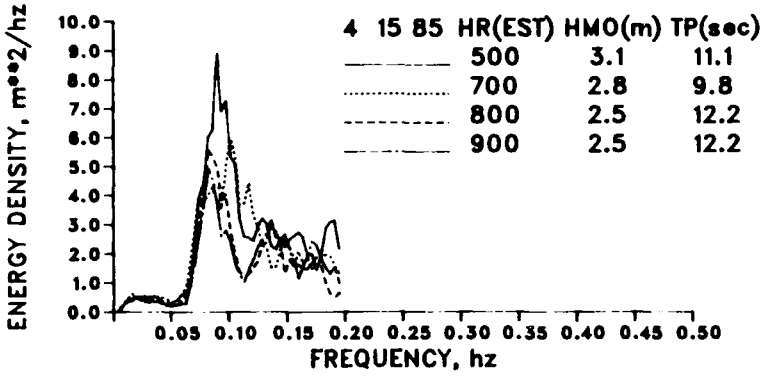


Figure C20. (Sheet 3 of 15)







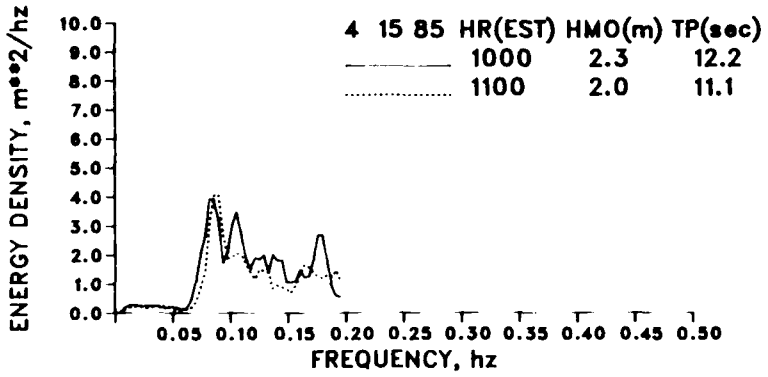


Figure C20. (Sheet 4 of 15)

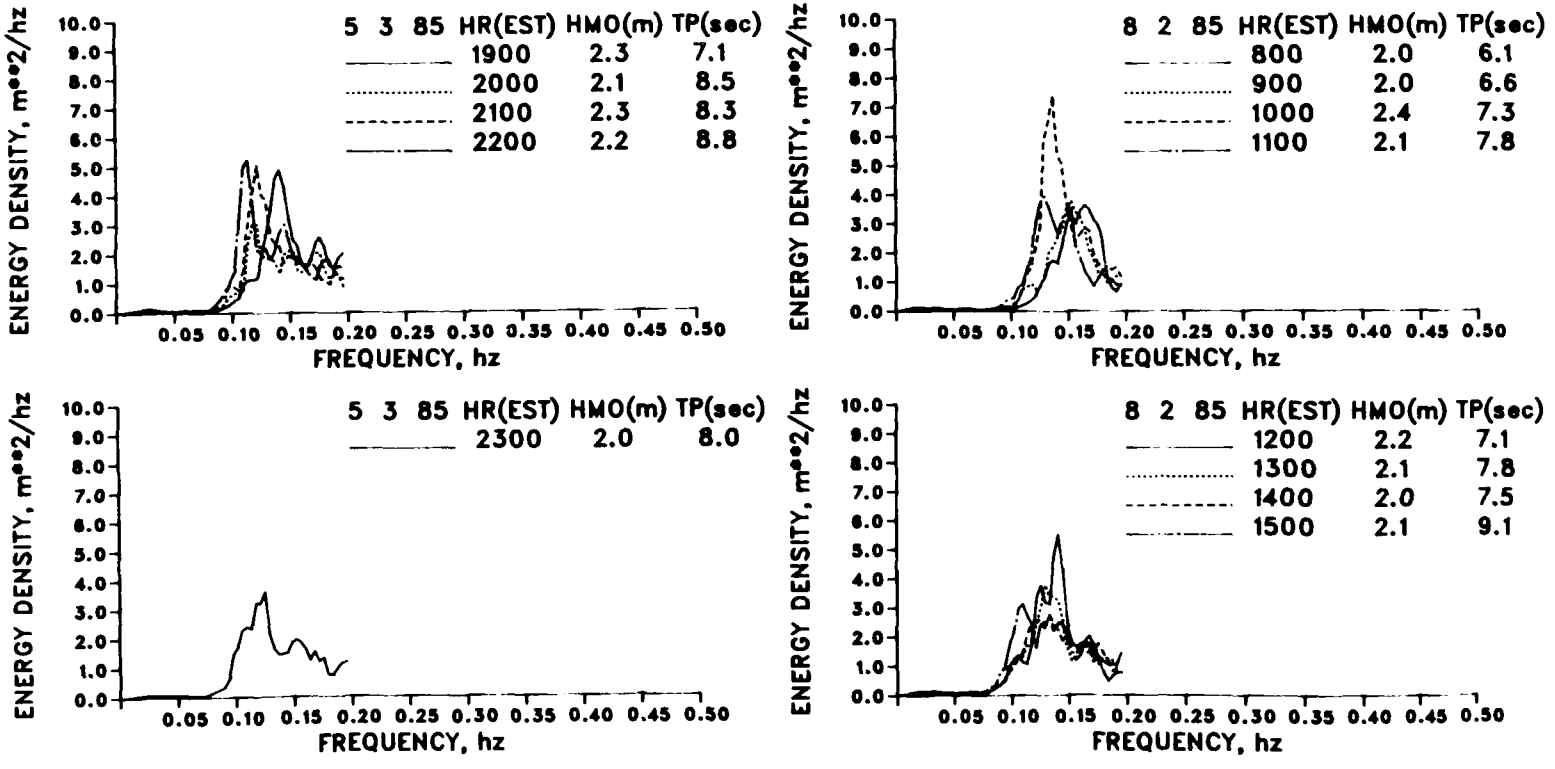


Figure C20. (Sheet 5 of 15)

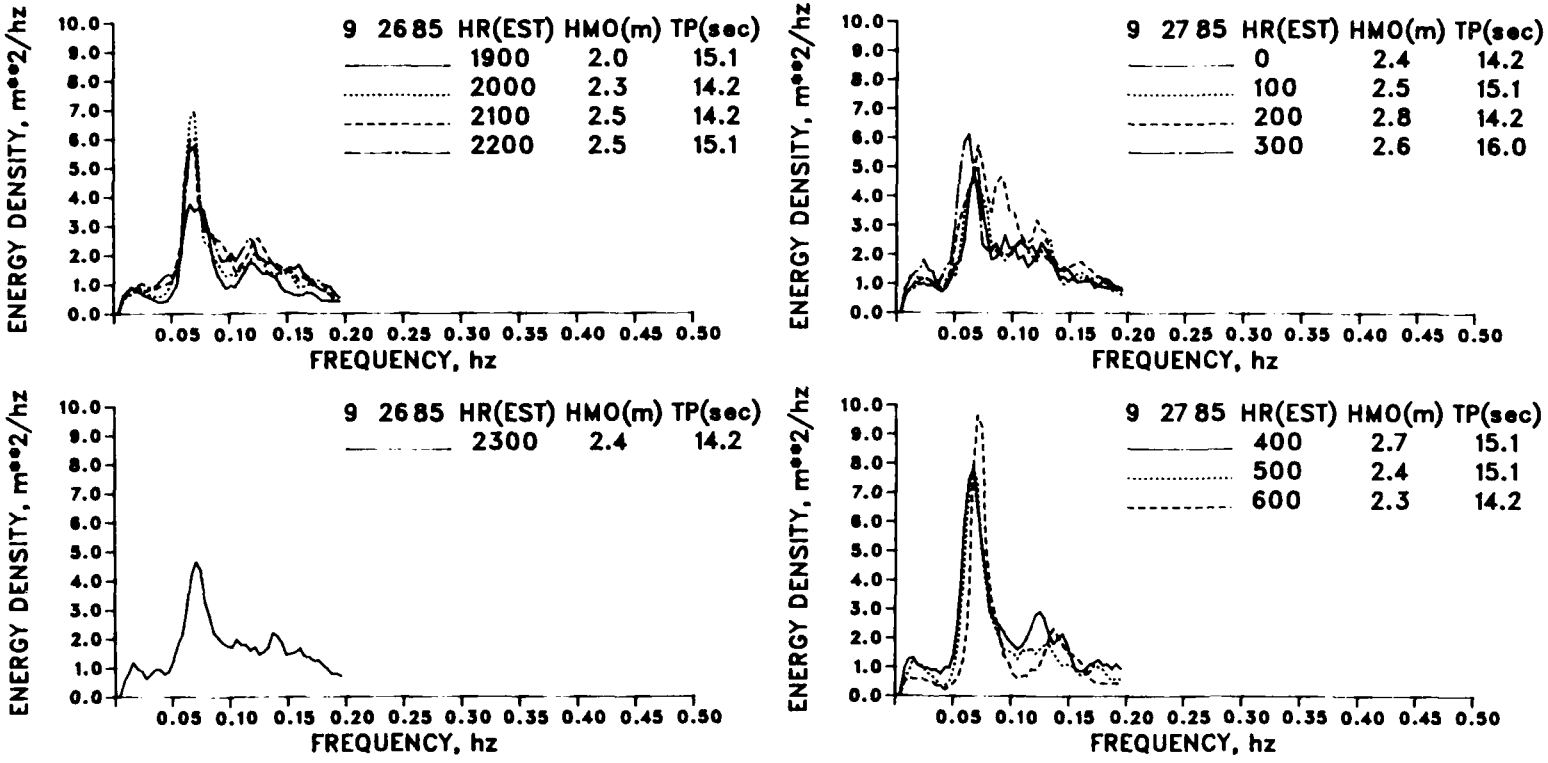


Figure C20. (Sheet 6 of 15)

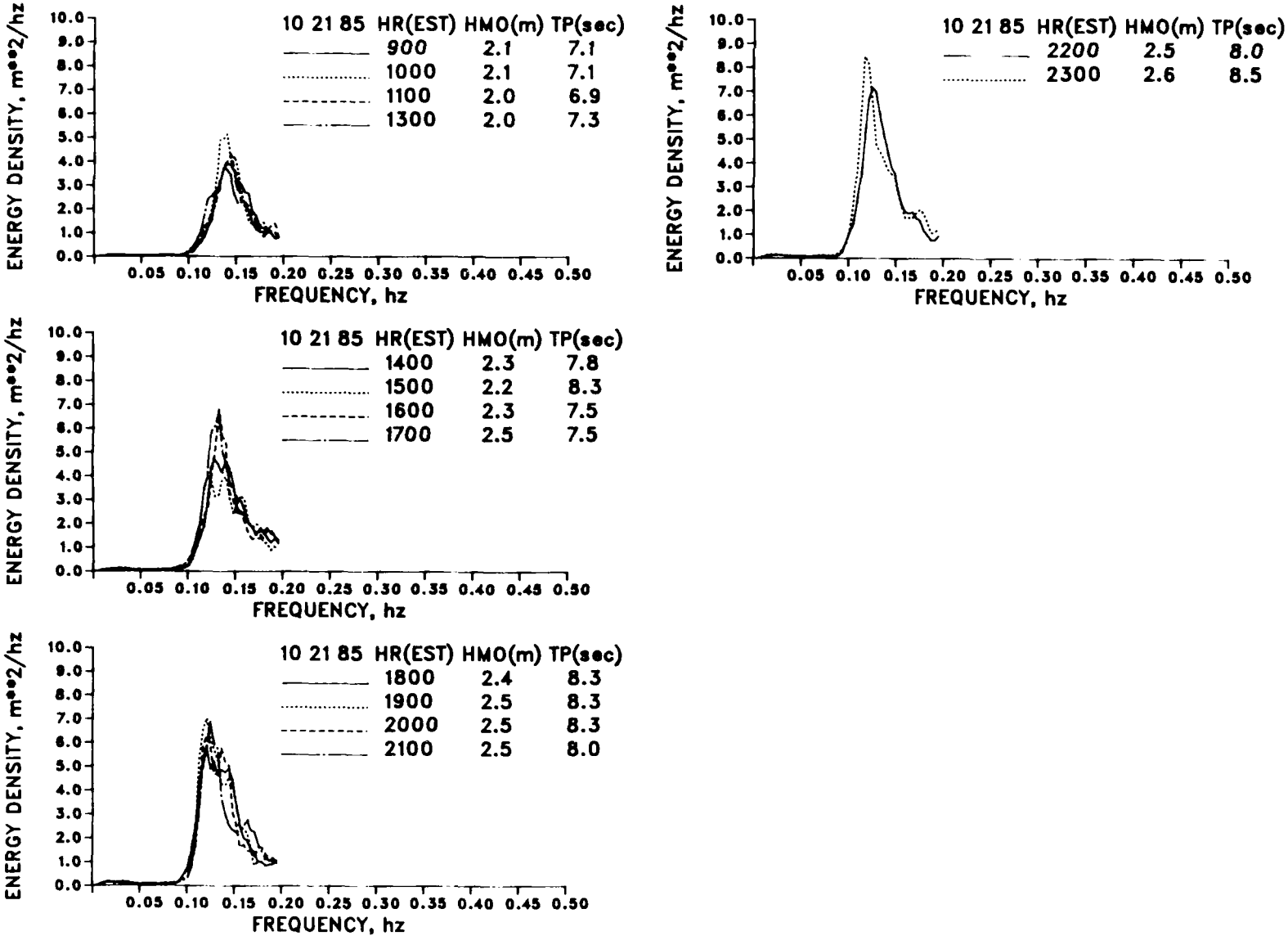
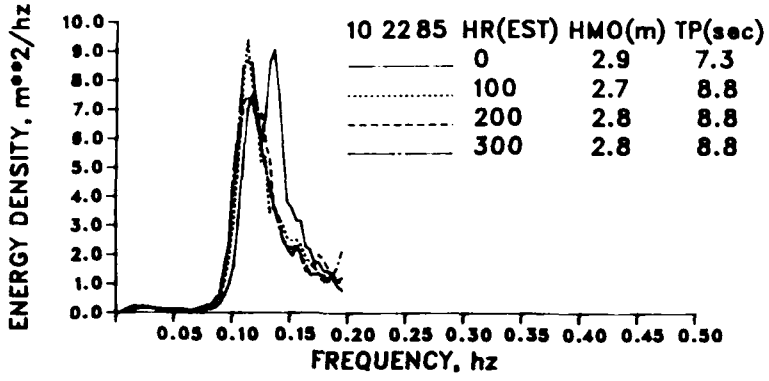
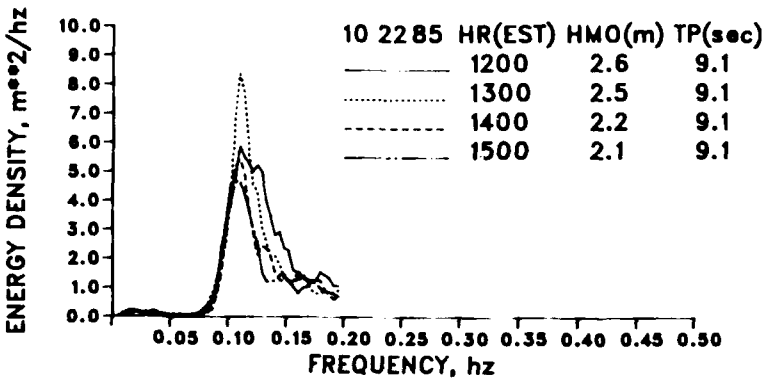
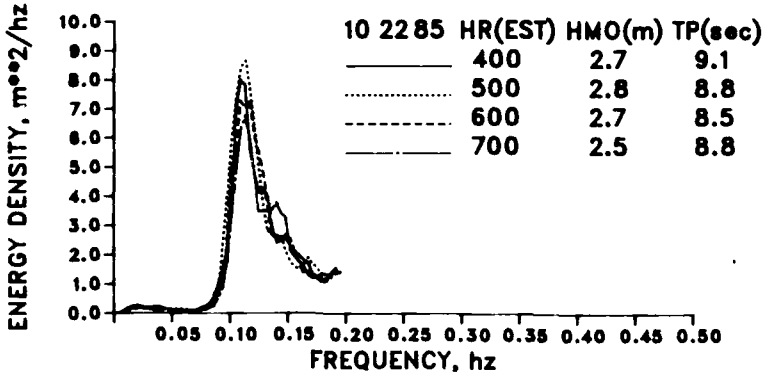


Figure C20. (Sheet 7 of 15)







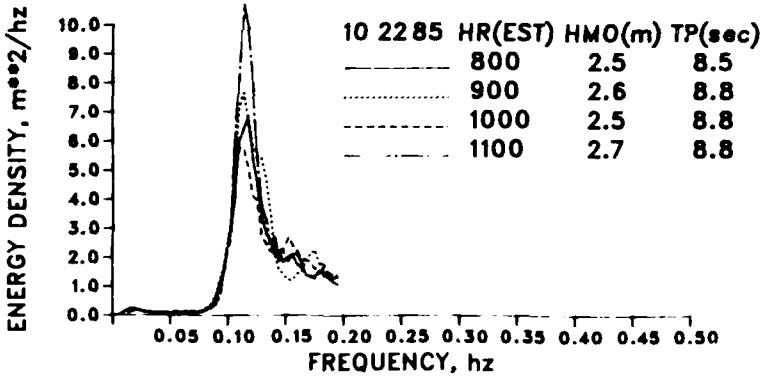
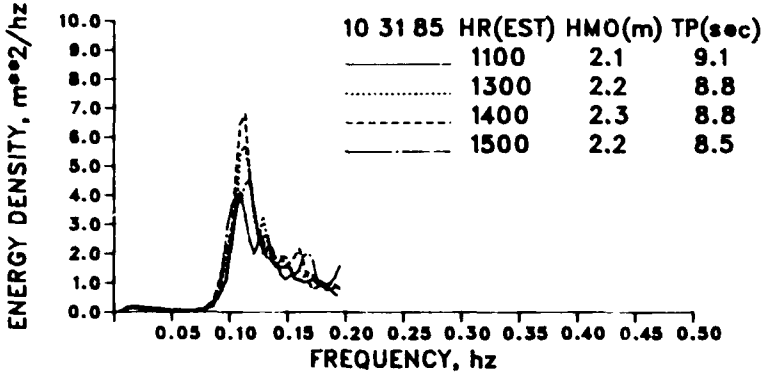
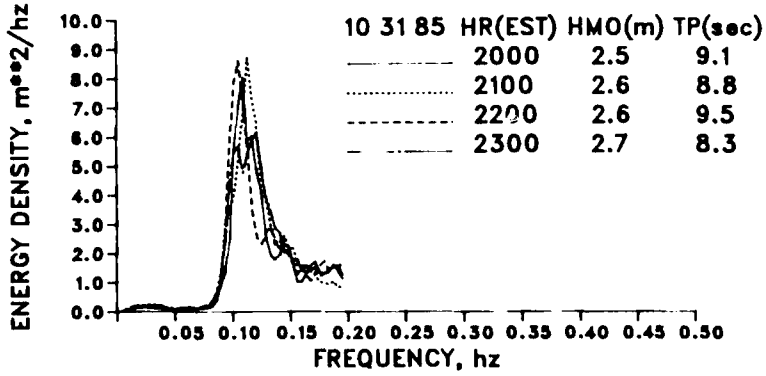


Figure C20. (Sheet 8 of 15)





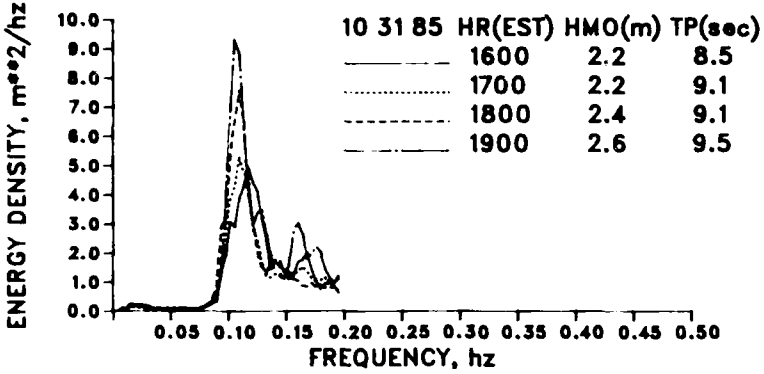


Figure C20. (Sheet 9 of 15)

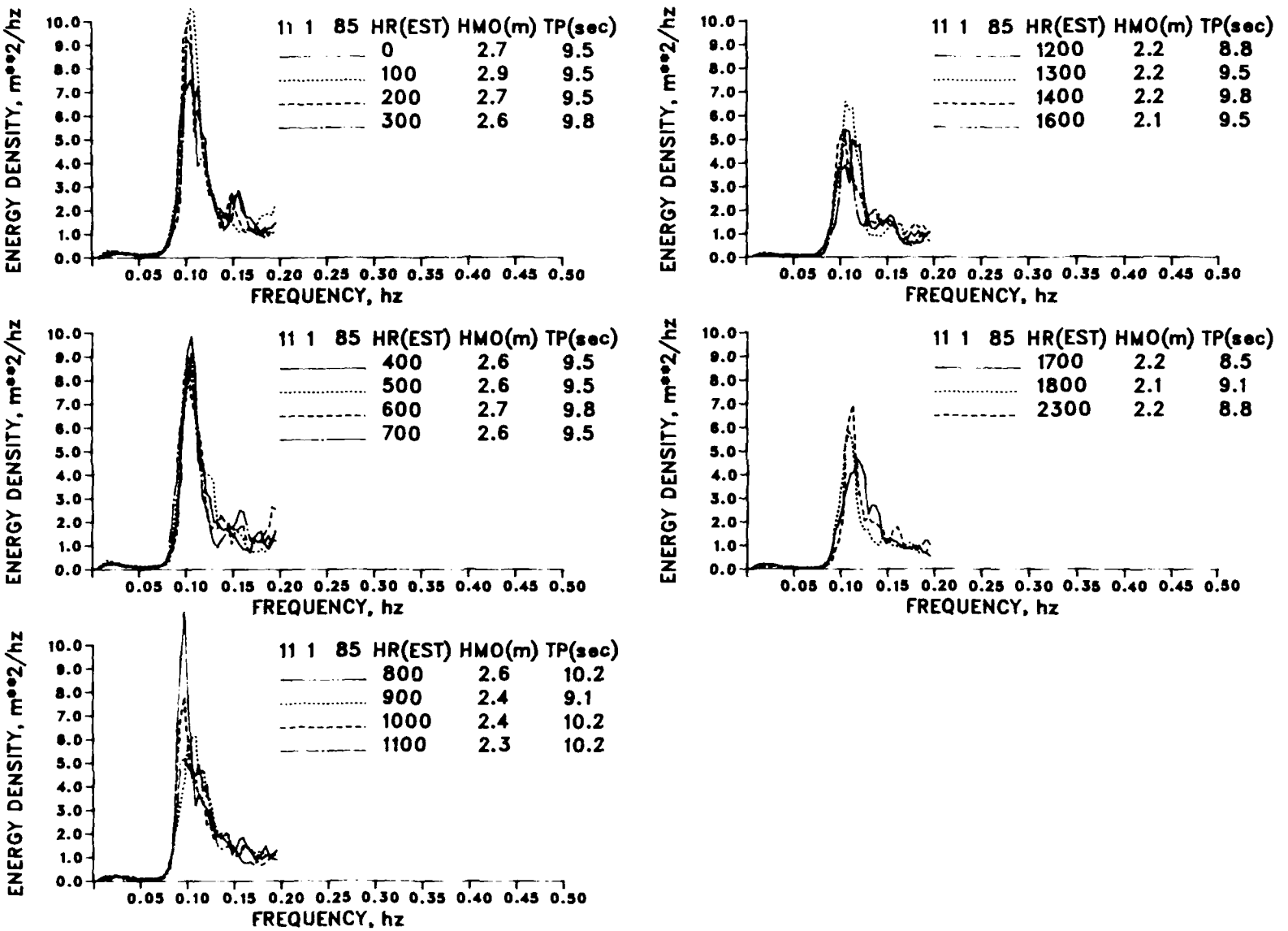


Figure C20. (Sheet 10 of 15)

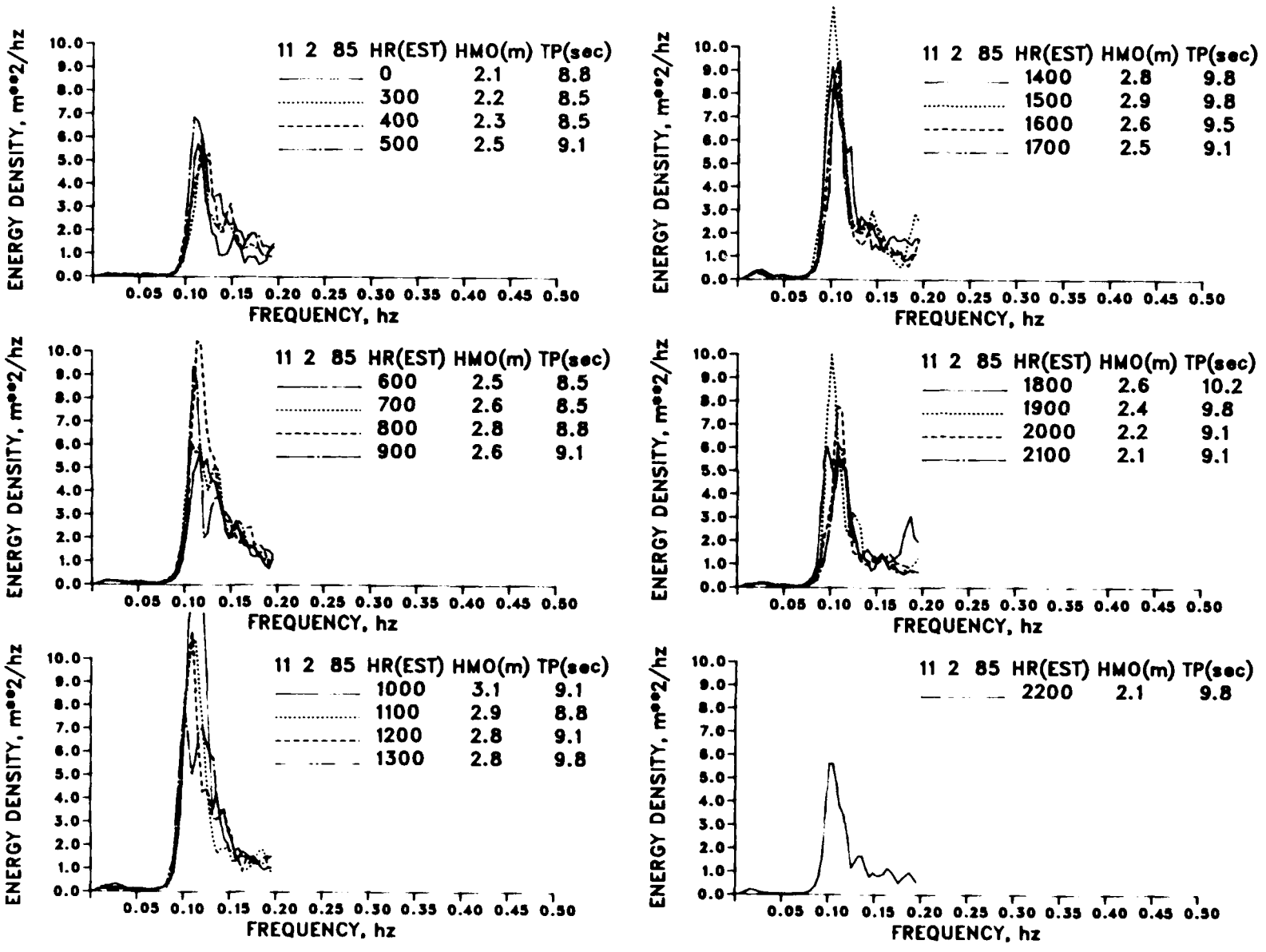


Figure C20. (Sheet 11 of 15)

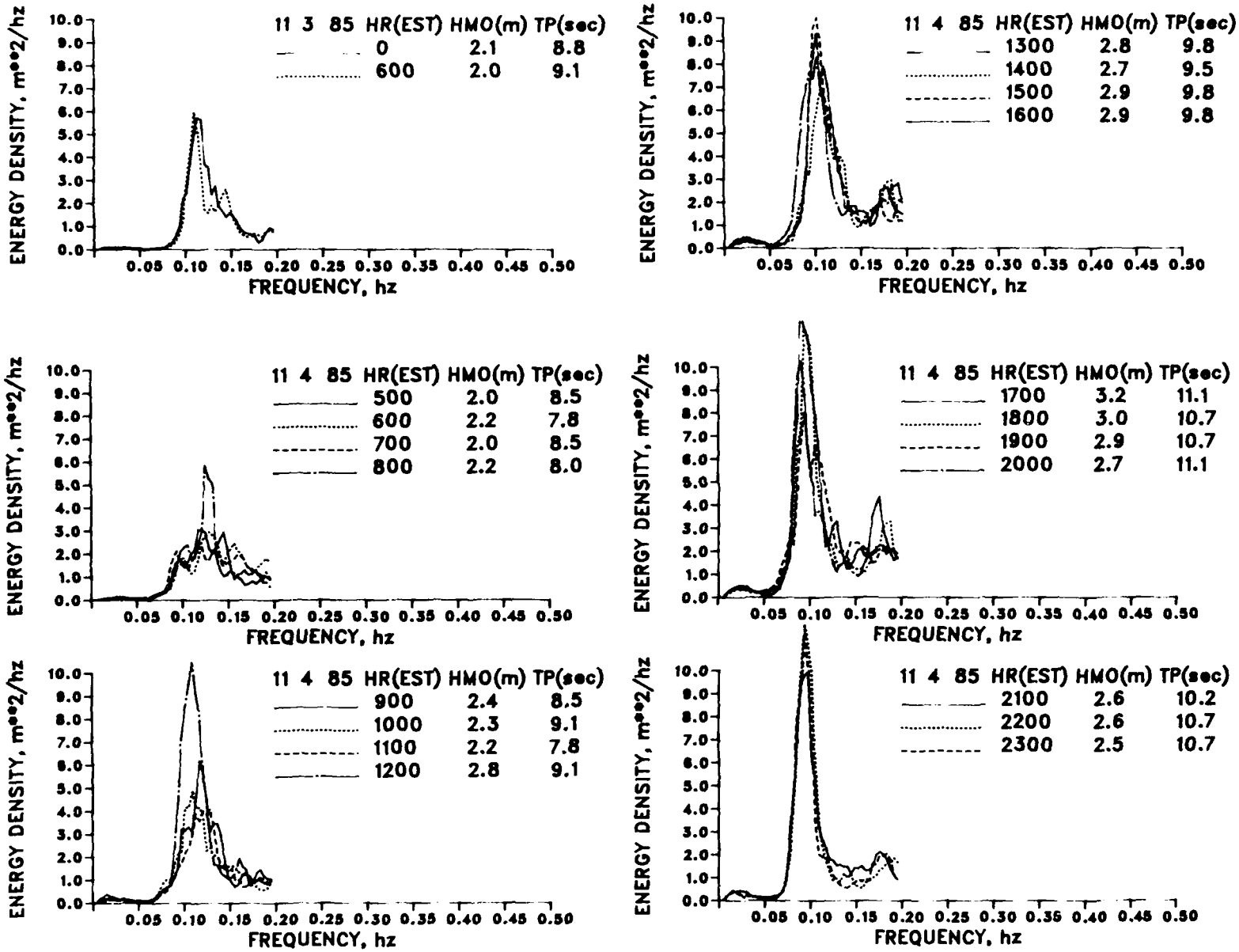


Figure C20. (Sheet 12 of 15)

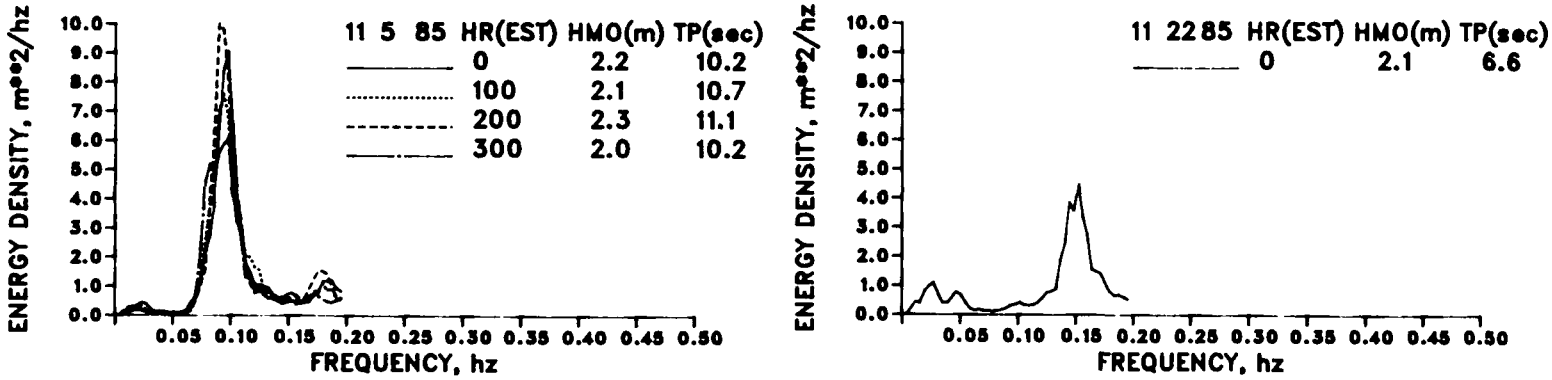


Figure C20. (Sheet 13 of 15)

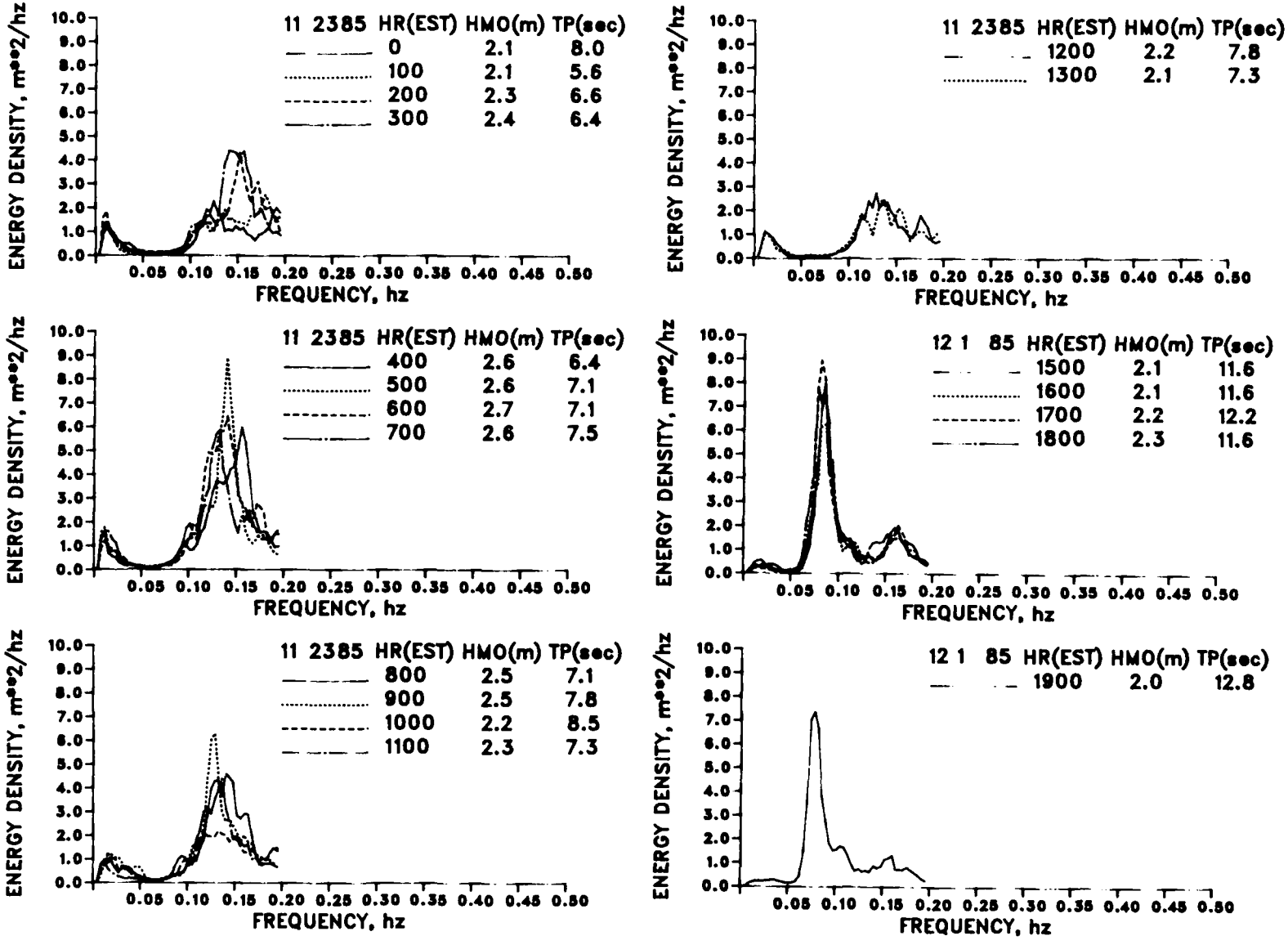
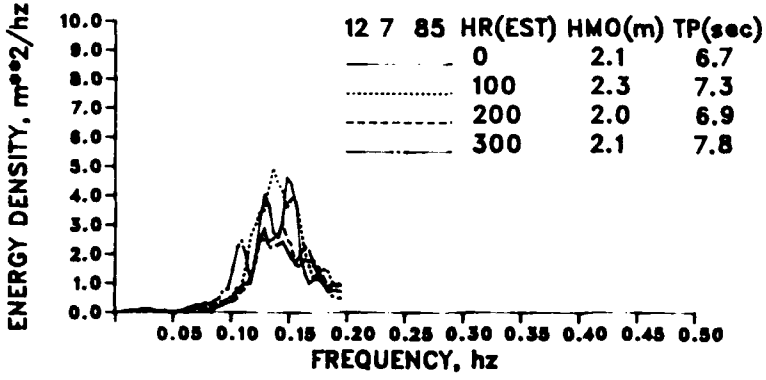
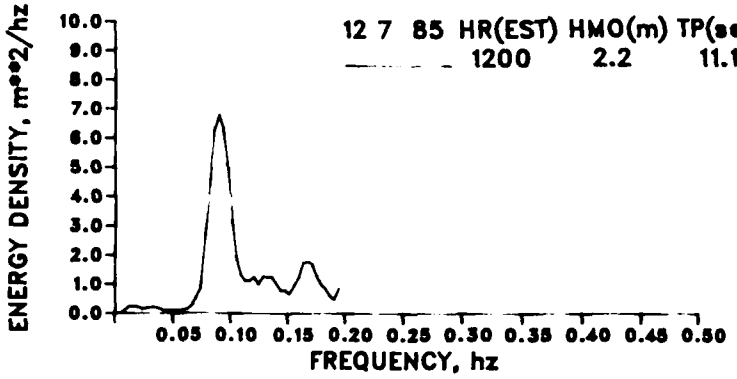
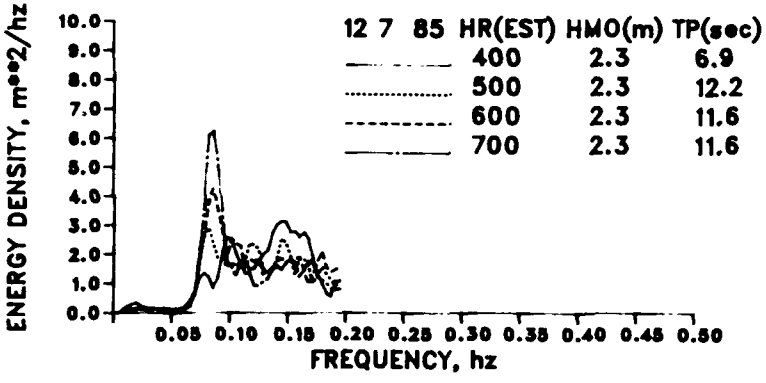


Figure C20. (Sheet 14 of 15)







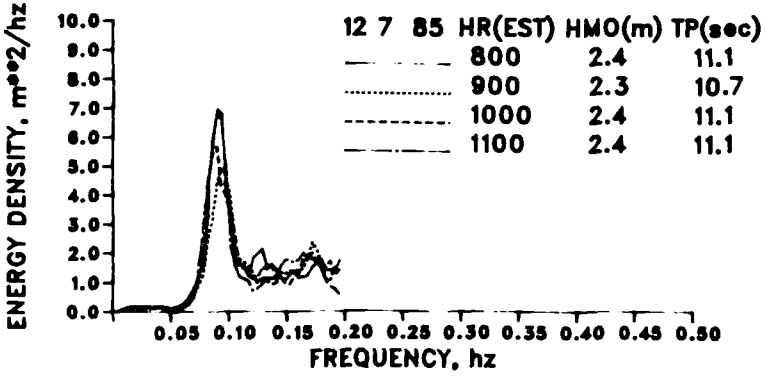
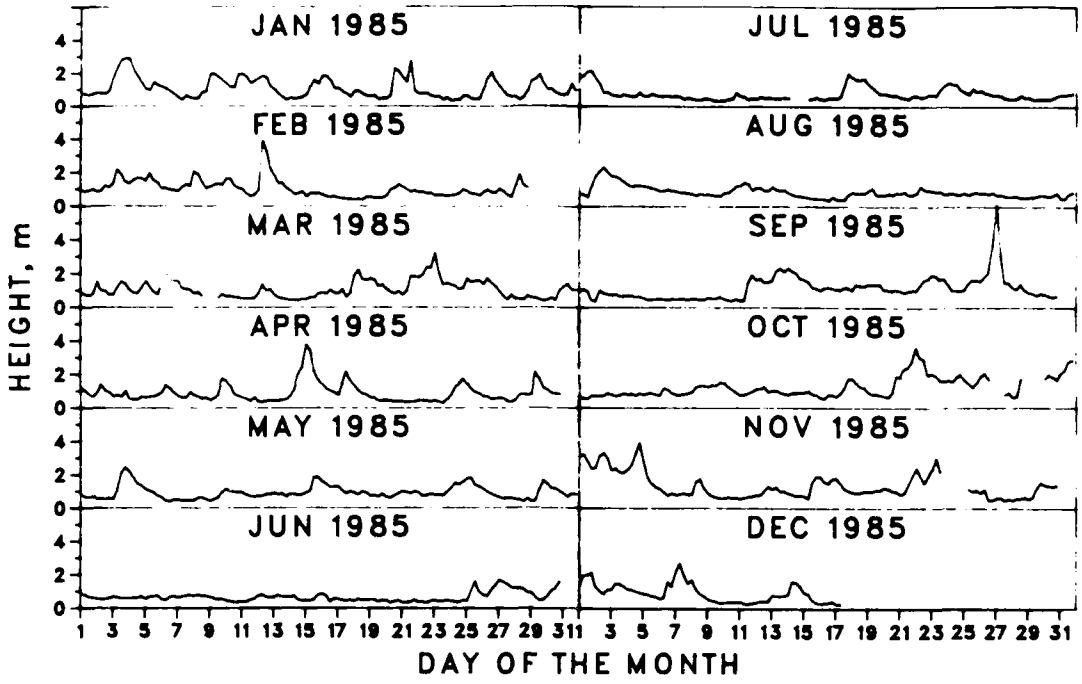
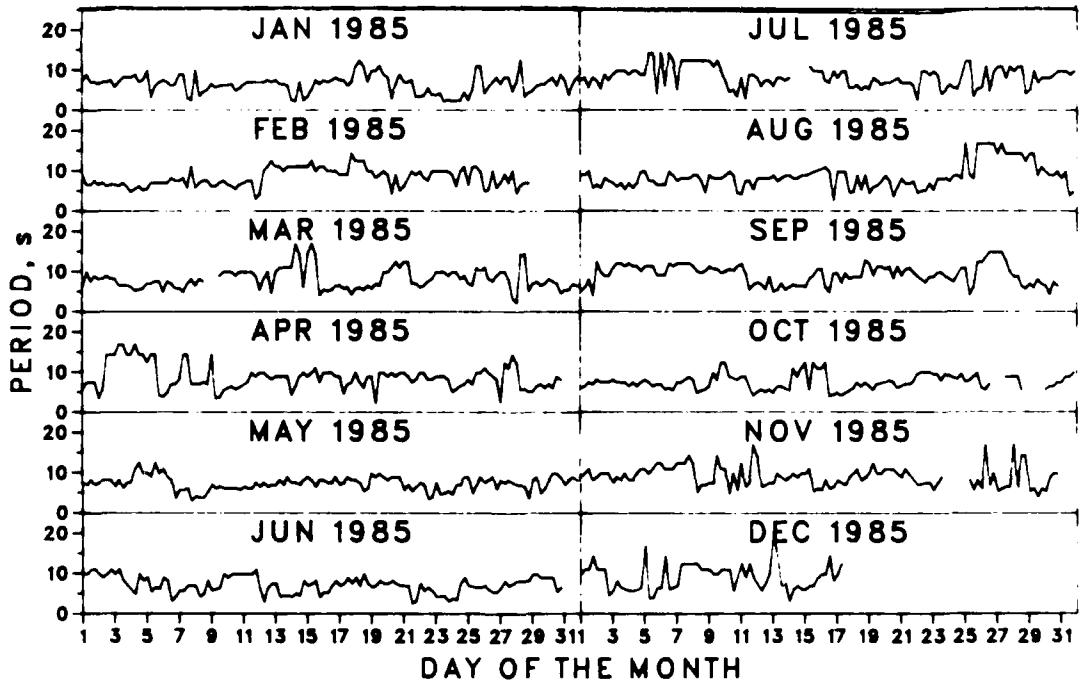


Figure C20. (Sheet 15 of 15)



a. Wave height



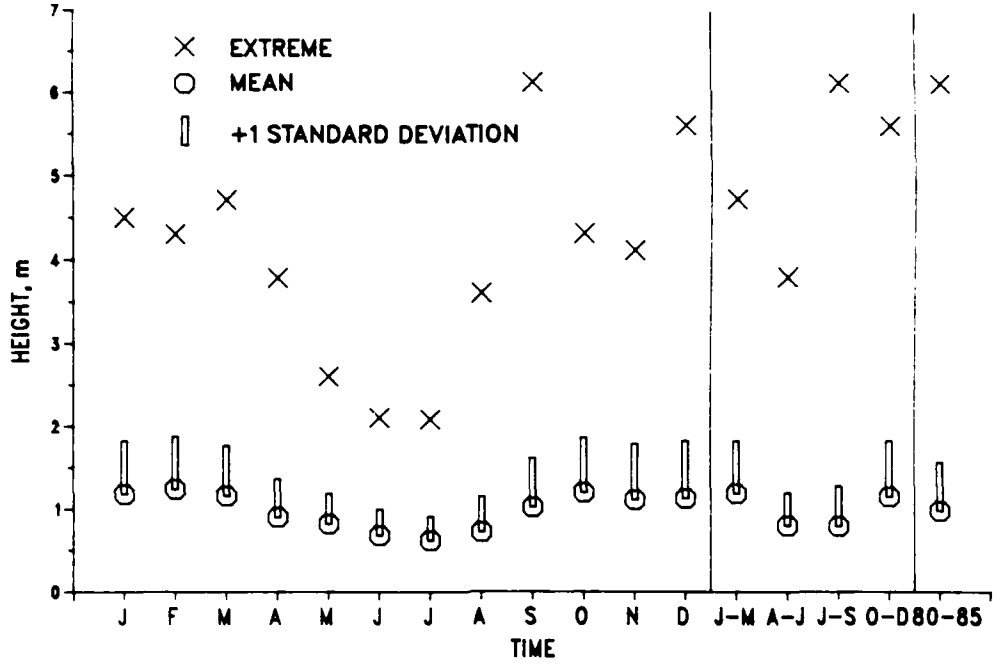
b. Wave period

Figure C21. Time-history of H_{mo} and T_p for Gage 630

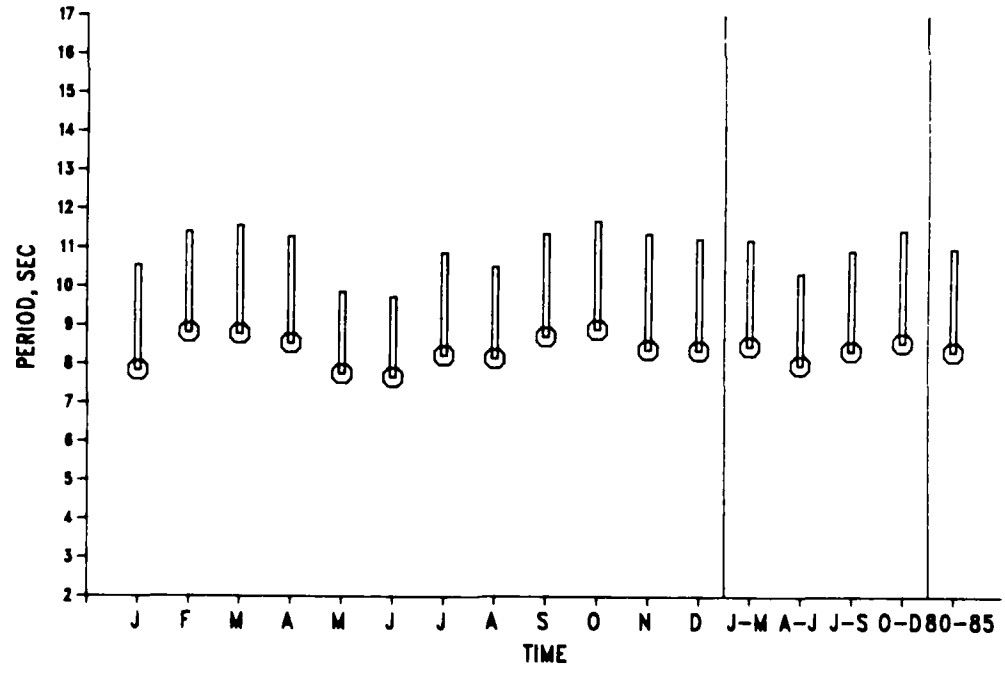
Table C12

1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 630

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	1.0	0.6	6.4	2.3	2.9	3	120
FEB	1.0	0.5	8.1	2.2	3.9	12	111
MAR	1.0	0.5	8.0	2.7	3.2	23	120
APR	0.9	0.6	8.6	3.1	3.8	15	117
MAY	0.9	0.4	7.2	1.7	2.5	3	124
JUN	0.6	0.3	7.0	2.1	1.7	27	117
JUL	0.7	0.4	8.3	2.6	2.1	1	120
AUG	0.9	0.3	8.5	3.1	2.3	2	121
SEP	1.1	0.7	9.2	2.5	6.1	27	118
OCT	1.2	0.6	7.5	1.9	3.6	22	112
NOV	1.3	0.8	9.0	2.7	3.9	4	110
DEC	0.9	0.6	9.0	3.3	2.7	7	61
JAN-MAR	1.0	0.6	7.5	2.5	3.9	FEB	351
APR-JUN	0.8	0.5	7.6	2.5	3.8	APR	358
JUL-SEP	0.9	0.6	8.7	2.8	6.1	SEP	359
OCT-DEC	1.2	0.7	8.4	2.7	3.9	NOV	283
ANNUAL	1.0	0.6	8.0	2.7	6.1	SEP	1351



a. Wave height



b. Wave period

Figure C22. 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 630

Table C13

1985 Annual Joint Distribution of H_{mo} versus T_p for Gage 630

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	89	37	37	89	155	111	407	311	215	67	148		1666
0.50 - 0.99	81	244	252	548	659	496	1066	563	444	207	252	7	4819
1.00 - 1.49		15	163	400	385	192	326	237	141	7	67		1933
1.50 - 1.99			22	274	333	104	111	59	44		30		977
2.00 - 2.49				74	74	74	96	30	7	15	15		385
2.50 - 2.99						22	37	15	22		7		103
3.00 - 3.49							7	44	15	7			73
3.50 - 3.99							7	15	7	7			36
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										7			7
TOTAL	170	296	474	1385	1606	999	2057	1274	895	317	519	7	

Table C14

1985 Seasonal Joint Distribution of H_{mo} versus T_p for Gage 630

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	256	28		85	114		313	57	142	142	142		1279
0.50 - 0.99	142	342	228	427	655	513	627	855	456	28	171		4444
1.00 - 1.49			228	484	798	199	313	199	114				2335
1.50 - 1.99			28	456	655	114	28	28	57				1366
2.00 - 2.49				85	85	57	85	28			28		368
2.50 - 2.99						28	85						113
3.00 - 3.49								28	28				56
3.50 - 3.99								28					28
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	398	370	484	1537	2307	911	1451	1223	797	170	341	0	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	84	84	84	140	307	279	754	475	28	84	56		2375
0.50 - 0.99	84	391	335	866	894	503	1313	447	196	251	140		5420
1.00 - 1.49			112	279	307	168	307	196		28	28		1425
1.50 - 1.99			28	84	168	56	140		28				504
2.00 - 2.49				28	56	56	28	28	28				224
2.50 - 2.99													0
3.00 - 3.49								28					28
3.50 - 3.99							28						28
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	168	475	559	1397	1732	1062	2570	1174	280	363	224	0	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		28	56	56	111	111	362	446	585		251		2006
0.50 - 0.99	84	84	251	362	418	334	1504	441	557	334	334		4903
1.00 - 1.49		28	167	362	167	167	390	279	279		56		1895
1.50 - 1.99			28	167	223	111	139	56			56		780
2.00 - 2.49				111	84	56	56			28			335
2.50 - 2.99													0
3.00 - 3.49										28			28
3.50 - 3.99										28			28
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										28			28
TOTAL	84	140	502	1098	1003	779	2451	1422	1421	446	697	0	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				71	71	35	141	247	71	35	141		812
0.50 - 0.99		141	177	530	671	671	742	247	601	212	389	35	4416
1.00 - 1.49		35	141	495	247	247	283	283	177		212		2120
1.50 - 1.99				424	283	141	141	177	106		71		1343
2.00 - 2.49				71	71	141	247	71		35	35		671
2.50 - 2.99						71	71	71	106		35		354
3.00 - 3.49							35	141	35				211
3.50 - 3.99								35	35				70
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	176	318	1591	1343	1306	1660	1272	1131	282	883	35	

Table C15

1985 Monthly Joint Distribution of H_{mo} Versus T_p for Gage 630

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	667	83		167	83		333	83	250		83		1749
0.50 - 0.99	333	750	417	417	917	500	500	167	167		83		4251
1.00 - 1.49			167	167	833	250	167	83					1667
1.50 - 1.99			83	500	667	333							1583
2.00 - 2.49					250		167						417
2.50 - 2.99						83	250						333
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	1000	833	667	1251	2750	1166	1417	333	417	0	166	0	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49							450			90	270		810
0.50 - 0.99	90	90	180	270	631	541	631	1622	901		90		5046
1.00 - 1.49			180	811	901	270	180	90	270				2702
1.50 - 1.99				360	541				90				991
2.00 - 2.49				180							90		270
2.50 - 2.99													0
3.00 - 3.49									90				90
3.50 - 3.99								90					90
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	90	90	360	1621	2073	811	1261	1802	1351	90	450	0	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	83			83	250		167	83	167	333	83		1249
0.50 - 0.99		167	83	583	417	500	750	833	333	83	333		4082
1.00 - 1.49			333	500	667	83	583	417	83				2666
1.50 - 1.99				500	750		83	83	83				1499
2.00 - 2.49				83		167	83	83					416
2.50 - 2.99													0
3.00 - 3.49								83					83
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	83	167	416	1749	2084	750	1666	1582	666	416	416	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49						85	1197	855	85	256	171		2649
0.50 - 0.99	171	427	85	684	427	427	940	342	85	769	342		4699
1.00 - 1.49			171	342	513	85	85	256		85			1537
1.50 - 1.99				171	171	171							513
2.00 - 2.49					171		85	85	85				426
2.50 - 2.99													0
3.00 - 3.49								85					85
3.50 - 3.99							85						85
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	171	427	256	1197	1282	768	2392	1623	255	1110	513	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	81	81		242	242		323						969
0.50 - 0.99		484	161	968	1290	887	2016	242	81		81		6210
1.00 - 1.49			161	242	323	323	484	323			81		1937
1.50 - 1.99			81	81	81		323		81				647
2.00 - 2.49				81		161							242
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	81	565	403	1614	1936	1371	3146	565	162	0	162	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	171	171	256	171	684	769	769	598					3589
0.50 - 0.99	85	256	769	940	940	171	940	769	427				5297
1.00 - 1.49				256	85	85	342						768
1.50 - 1.99					256		85						341
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	256	427	1025	1367	1965	1025	2136	1367	427	0	0	0	

(Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			167	167	333	333	1000	500	333		667		3500
0.50 - 0.99	167	83	167	500	417	333	917	1250	333	333	333		4833
1.00 - 1.49		83	167	333	83		83	83					832
1.50 - 1.99				333	83	167	83						666
2.00 - 2.49				83			83						166
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	167	166	501	1416	916	833	2166	1833	666	333	1000	0	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49							83	496	83				662
0.50 - 0.99	83	165	496	413	496	579	3140	331	83	661	661		7108
1.00 - 1.49			165	413	248	331	248	248					1653
1.50 - 1.99				83	248								331
2.00 - 2.49				83		83	83						249
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	83	165	661	992	992	993	3554	1075	166	661	661	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		85						339	1356		85		1865
0.50 - 0.99			85	169	339	85	424	339	1271				2712
1.00 - 1.49			169	339	169	169	847	508	847		169		3217
1.50 - 1.99			85	85	339	169	339	169			169		1355
2.00 - 2.49				169	254	85				85			593
2.50 - 2.99													0
3.00 - 3.49										85			85
3.50 - 3.99										85			85
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										85			85
TOTAL	0	85	339	762	1101	508	1610	1355	3474	340	423	0	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49													0
0.50 - 0.99		89	357	625	804	1339	1250		357		268		5089
1.00 - 1.49			268	625	268	268	268	179			89		1965
1.50 - 1.99				446	446	268	179	357	89		89		1874
2.00 - 2.49				89		268	89	89					535
2.50 - 2.99						89	89	89	89				356
3.00 - 3.49									89				89
3.50 - 3.99								89					89
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	89	625	1785	1518	2232	1875	803	624	0	446	0	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49					182			91			91		364
0.50 - 0.99			91	636	364	273	636	636	818	455	636		4545
1.00 - 1.49		91		182	182	364	364	455	273		273		2184
1.50 - 1.99				455	182	91	182	91					1001
2.00 - 2.49				91	91	91	545	91					909
2.50 - 2.99						91	91	91	182				455
3.00 - 3.49							91	364					455
3.50 - 3.99									91				91
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	91	91	1364	1001	910	1909	1819	1364	455	1000	0	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				328		164	656	984	328	164	492		3116
0.50 - 0.99		492		164	984	164			656	164	164	164	2952
1.00 - 1.49			164	820	328		164	164	328		328		2296
1.50 - 1.99				328	164				328		164		984
2.00 - 2.49					164					164	164		492
2.50 - 2.99											164		164
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	492	164	1640	1640	328	820	1148	1640	492	1476	164	

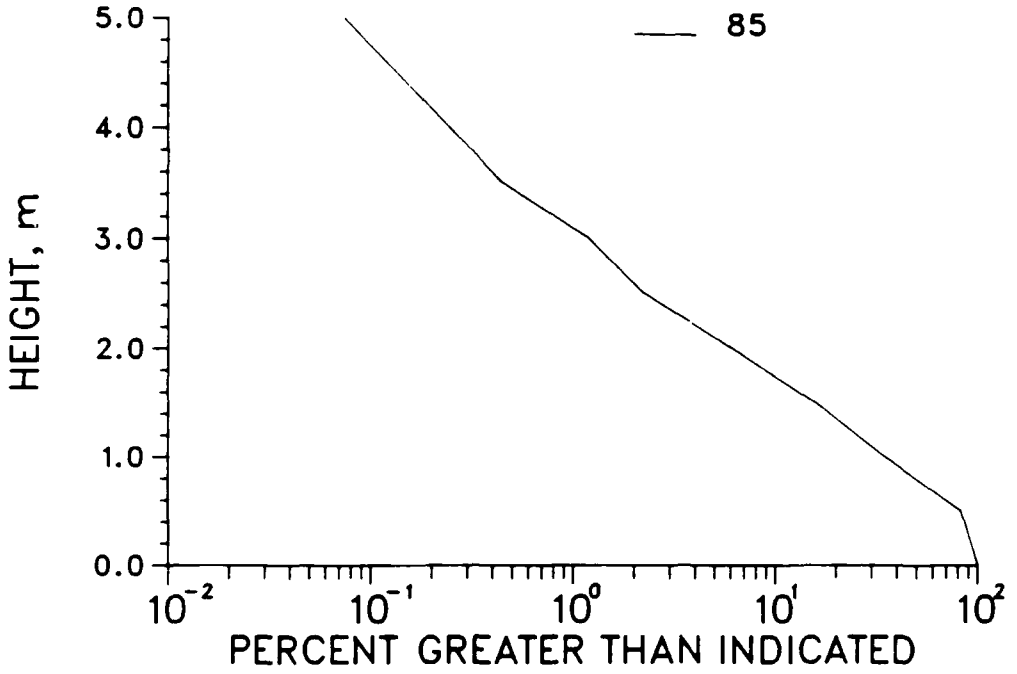


Figure C23. 1985 annual cumulative distribution of H_{mo} for Gage 630

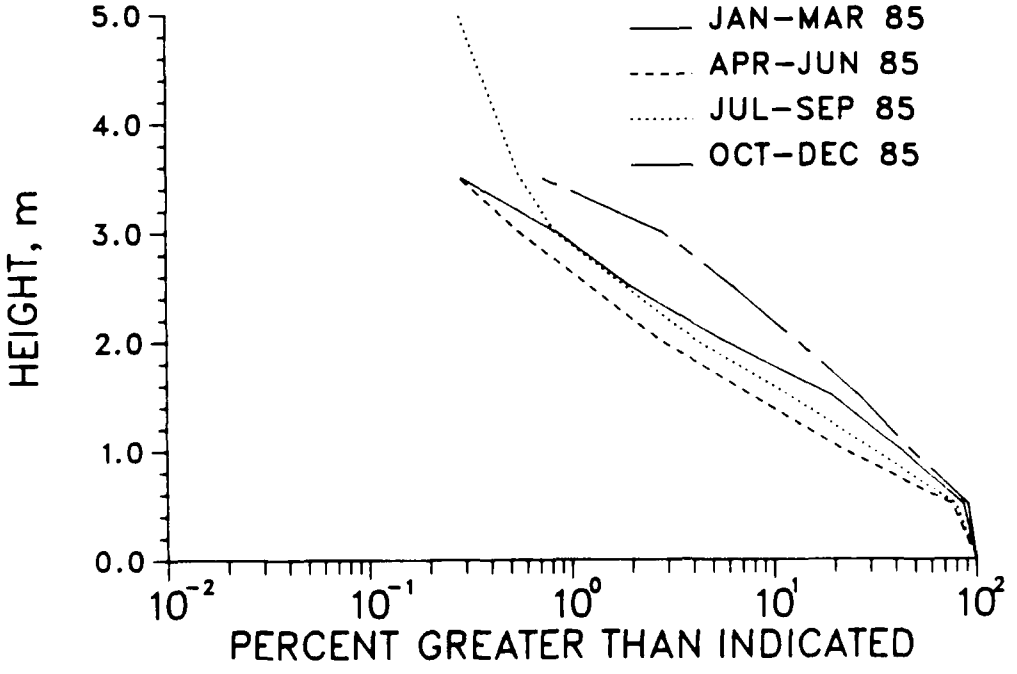
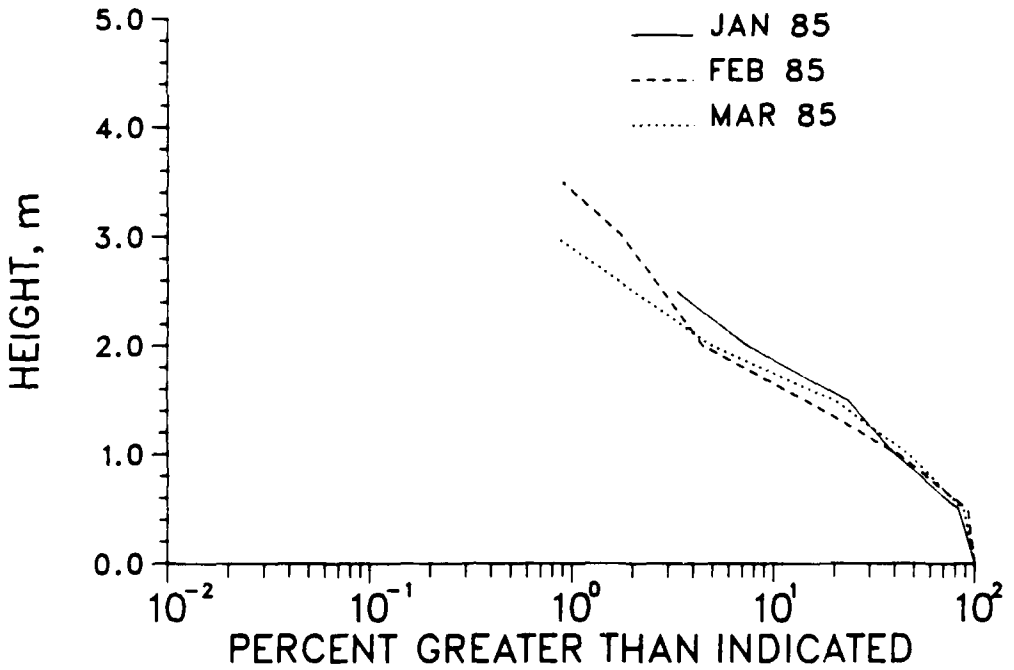


Figure C24. 1985 seasonal cumulative distribution of H_{mo} for Gage 630



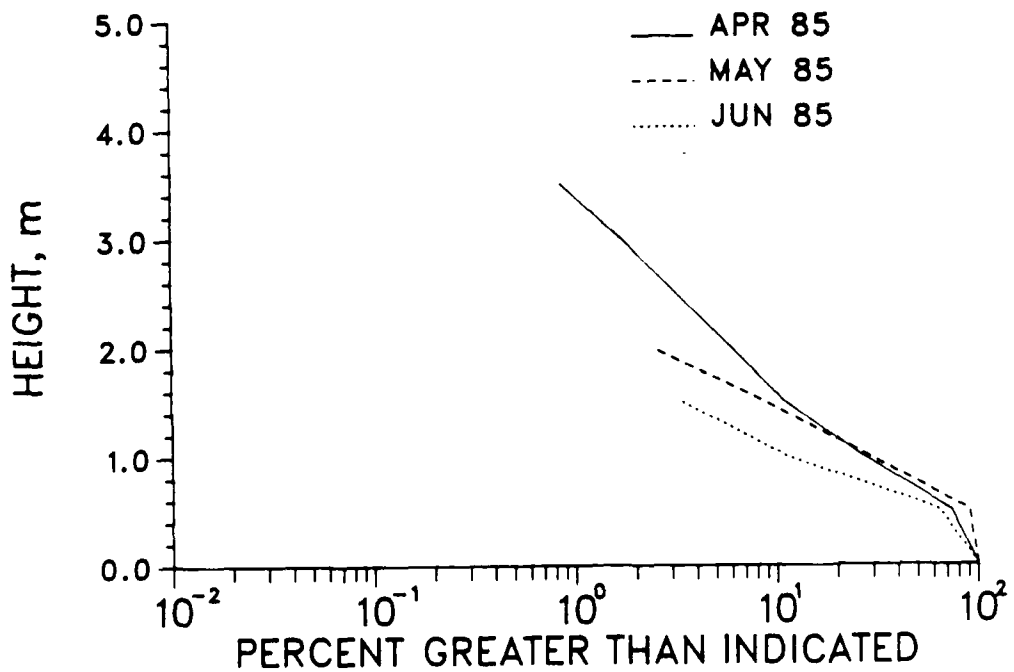
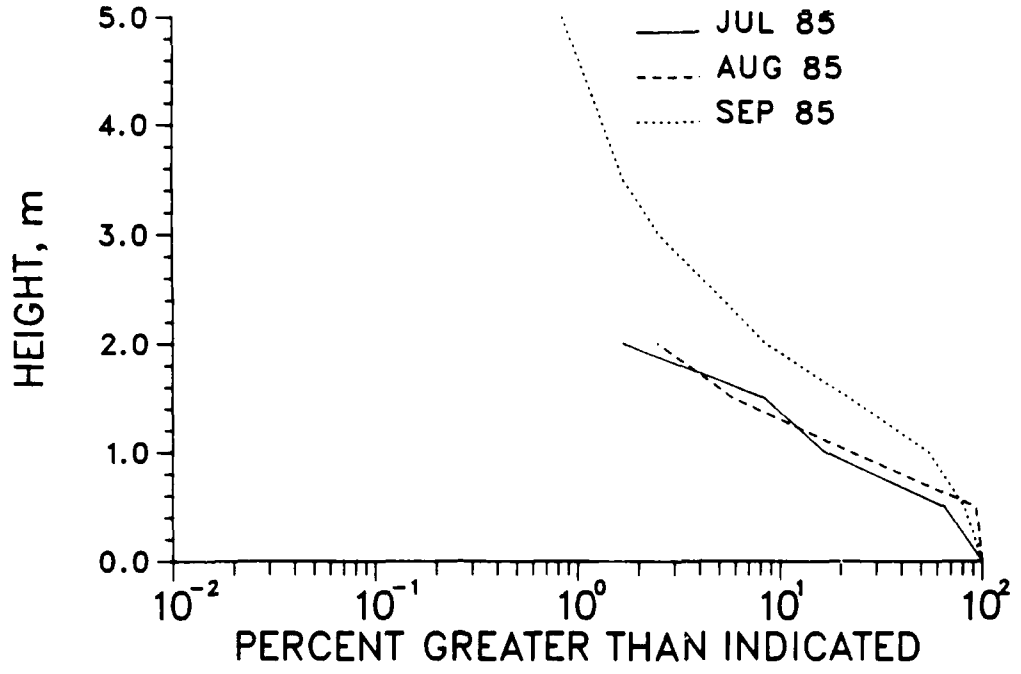


Figure C25. 1985 monthly cumulative distribution of H_{mo} for Gage 630 (Continued)



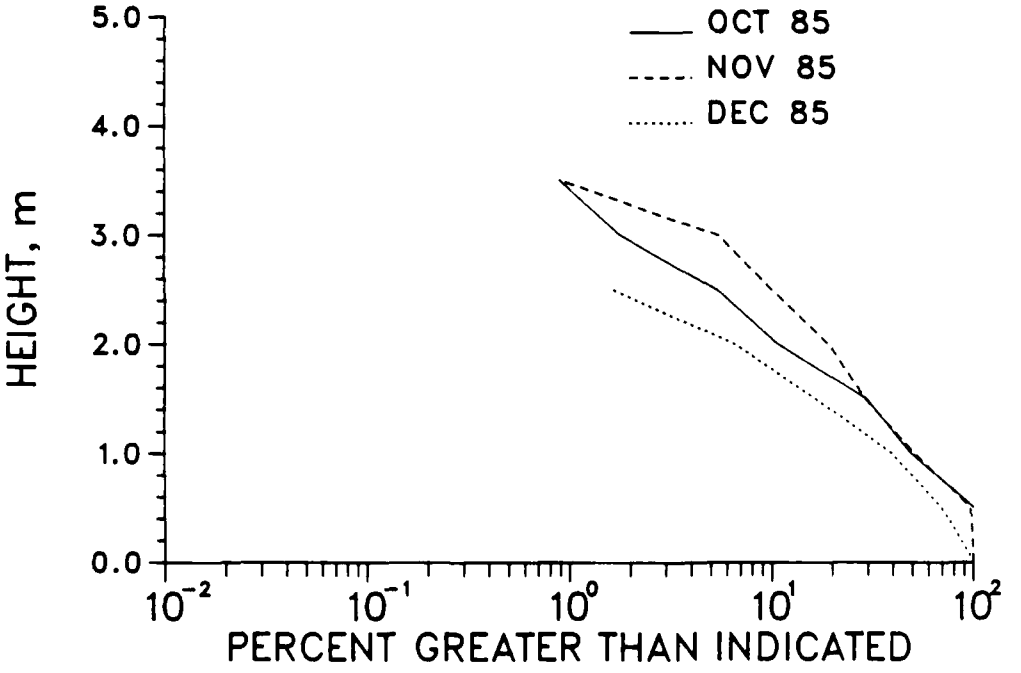


Figure C25. (Concluded)

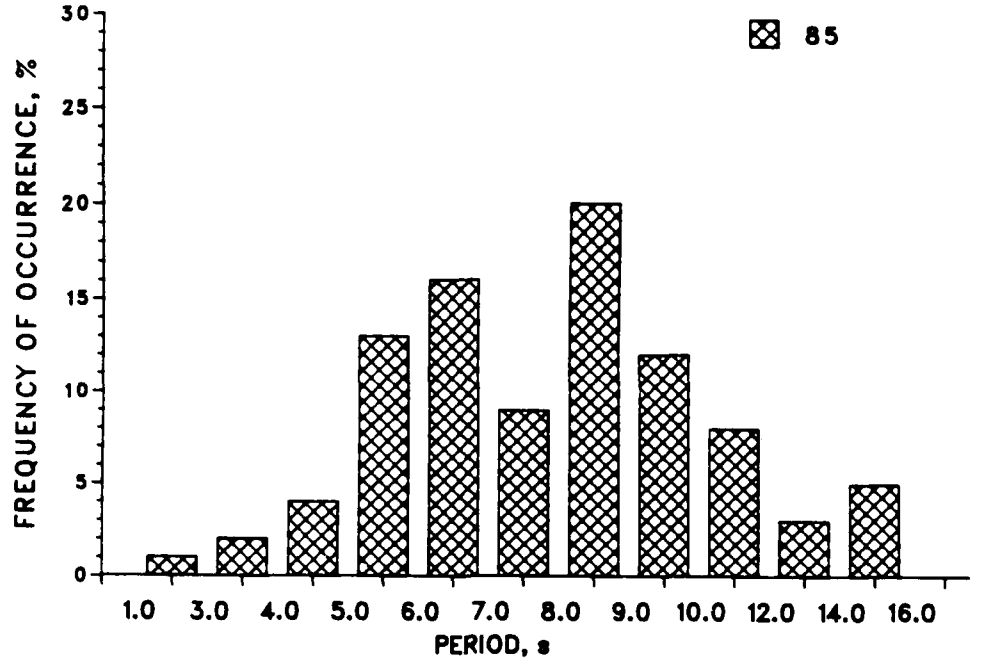


Figure C26. 1985 annual distribution of T_p for Gage 630

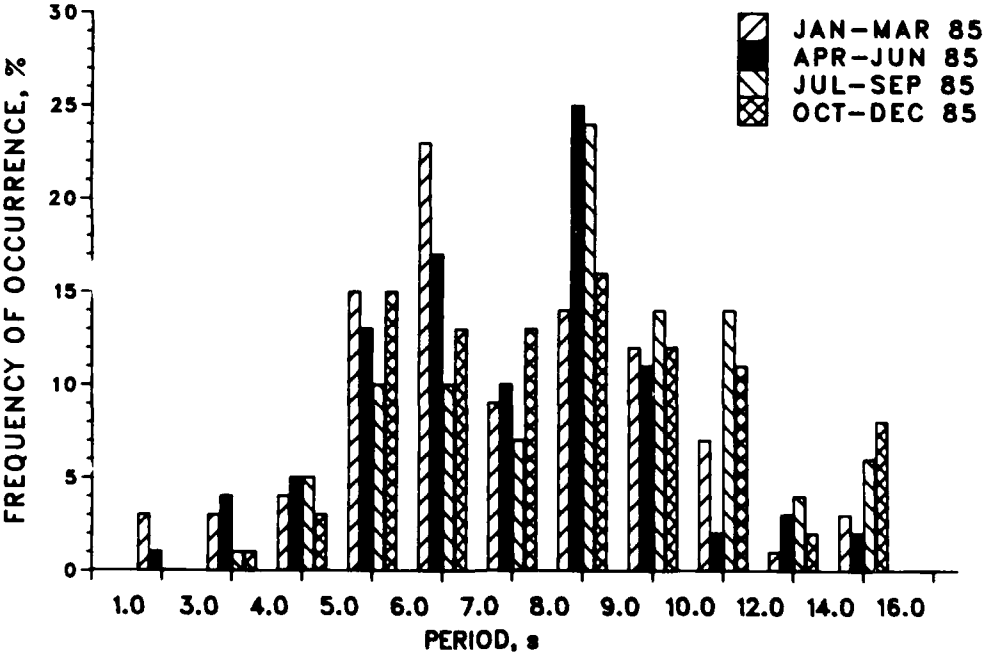


Figure C27. 1985 seasonal distribution of T_p for Gage 630

Table C16

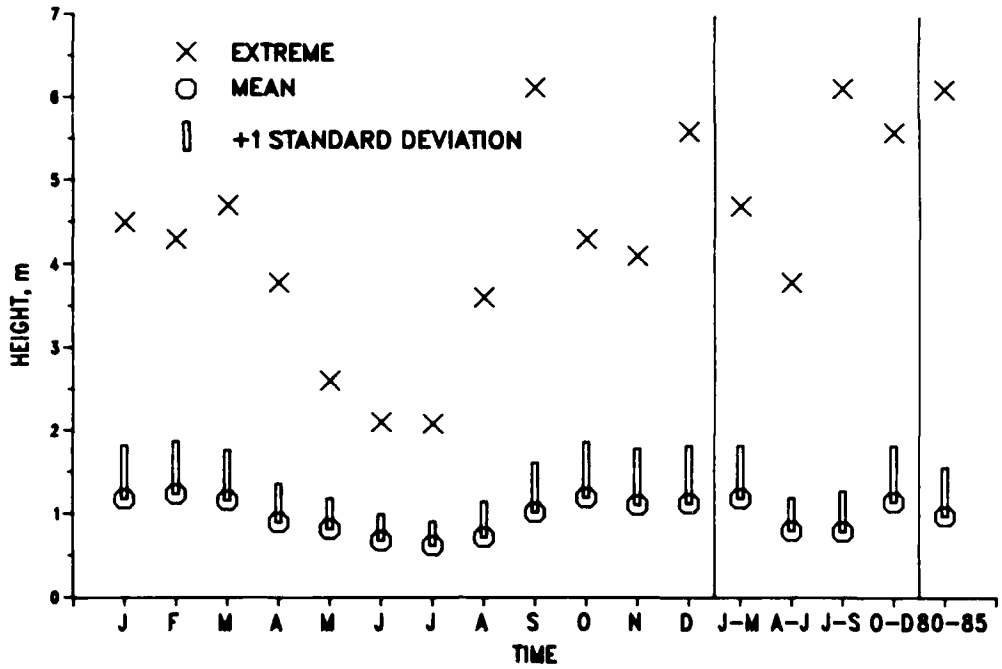
1985 Persistence of H_{mo} for Gage 630

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	21	16	15				13		11		10		9						
1.0	51	38	25	15	10	9	6	5	3		2							1	
1.5	45	27	11	4	3		2												
2.0	23	10	2																
2.5	11	5	1																
3.0	7	2																	
3.5	5	1																	
4.0+	1																		

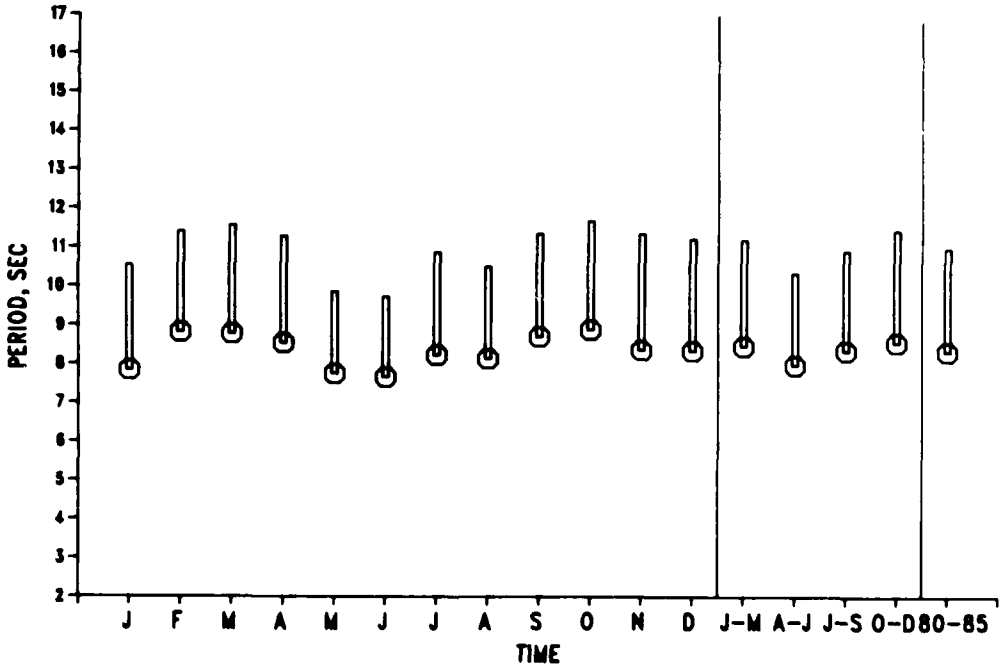
Table C17

1980 Through 1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 630

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	1.2	0.6	7.8	2.7	4.5	83	639
FEB	1.2	0.6	8.8	2.6	4.3	83	571
MAR	1.1	0.6	8.7	2.8	4.7	83	641
APR	0.9	0.5	8.5	2.8	3.8	85	621
MAY	0.8	0.4	7.7	2.1	2.6	81	650
JUN	0.7	0.3	7.6	2.1	2.1	81	595
JUL	0.6	0.3	8.2	2.6	2.1	85	613
AUG	0.7	0.4	8.1	2.4	3.6	81	592
SEP	1.0	0.6	8.7	2.7	6.1	85	624
OCT	1.2	0.7	8.9	2.8	4.3	82	706
NOV	1.1	0.7	8.3	3.0	4.1	81	531
DEC	1.1	0.7	8.3	2.9	5.6	80	591
JAN-MAR	1.2	0.6	8.4	2.8	4.7	MAR 1983	1851
APR-JUN	0.8	0.4	7.9	2.4	3.8	APR 1985	1866
JUL-SEP	0.8	0.5	8.3	2.6	6.1	SEP 1985	1829
OCT-DEC	1.1	0.7	8.5	2.9	5.6	DEC 1980	1828
ANNUAL	1.0	0.6	8.3	2.7	6.1	SEP 1985	7374



a. Wave height



b. Wave period

Figure C28. 1980 through 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 630

Table C18

1980 Through 1985 Annual Joint Distribution of

H_{mo} versus T_p for Gage 630

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	22	15	27	58	96	117	271	320	255	90	153	5	1429
0.50 - 0.99	30	114	264	452	589	510	658	697	926	179	229	23	4671
1.00 - 1.49		7	102	344	469	292	209	198	414	50	157	5	2247
1.50 - 1.99			7	118	281	123	66	62	137	45	96	7	942
2.00 - 2.49				26	76	85	45	43	79	35	49	3	441
2.50 - 2.99					5	34	18	19	34	11	28		149
3.00 - 3.49						3	12	15	19	5	11		65
3.50 - 3.99							1	9	14	7	4		35
4.00 - 4.49							1		8	1	1		11
4.50 - 4.99									3				3
5.00 - GREATER										3	1		4
TOTAL	52	136	400	998	1516	1164	1281	1363	1889	426	729	43	

Table C19

1980 Through 1985 Seasonal Joint Distribution of

H_{mo} versus T_p for Gage 630

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	54	5		54	54	5	108	43	167	49	100		642
0.50 - 0.99	27	135	222	373	438	324	308	546	1021	124	259	5	3782
1.00 - 1.49		5	146	465	583	297	222	227	692	76	276		2989
1.50 - 1.99			11	211	384	200	65	92	259	86	140		1448
2.00 - 2.49				43	103	108	59	59	135	70	92	5	674
2.50 - 2.99					11	49	27	16	76	32	76		287
3.00 - 3.49							16	16	49	11	11		103
3.50 - 3.99								16	11		5		32
4.00 - 4.49							5		22		5		32
4.50 - 4.99									11				11
5.00 - GREATER													0
TOTAL	81	145	379	1146	1573	983	810	1015	2443	448	967	10	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	16	21	38	70	150	204	429	418	209	38	54		1647
0.50 - 0.99	54	166	397	627	648	670	1024	954	949	155	166		5810
1.00 - 1.49		5	96	198	327	252	247	225	343	32	107		1832
1.50 - 1.99			11	54	118	75	70	32	107	11	54		532
2.00 - 2.49				16	21	32	16	38	16	5	5		149
2.50 - 2.99						5	11			5			21
3.00 - 3.49								5					5
3.50 - 3.99							5						5
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	70	192	542	965	1264	1238	1802	1672	1624	246	386	0	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	5	22	44	77	153	202	448	662	426	164	191	16	2410
0.50 - 0.99	16	71	208	421	678	651	935	864	804	252	191	33	5124
1.00 - 1.49		11	60	312	372	279	202	137	175	27	71	5	1651
1.50 - 1.99			5	60	159	82	49	60	27	5	49		496
2.00 - 2.49				27	38	16	22	16	44	16	16		195
2.50 - 2.99					5	16	16	5	5		5		52
3.00 - 3.49						5		5	11	5	5		31
3.50 - 3.99								5	5	5	5		20
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										5			5
TOTAL	21	104	317	897	1405	1251	1672	1754	1497	479	533	54	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	11	11	27	33	27	55	98	159	219	109	268	5	1022
0.50 - 0.99	22	82	230	383	591	394	361	421	930	186	301	55	3956
1.00 - 1.49		5	104	405	596	339	164	202	443	66	175	16	2515
1.50 - 1.99				148	465	137	82	66	153	77	142	27	1297
2.00 - 2.49				16	142	186	82	60	120	49	82	5	742
2.50 - 2.99					5	66	16	55	55	5	33		235
3.00 - 3.49						5	33	33	16	5	27		119
3.50 - 3.99								16	38	22	5		81
4.00 - 4.49									11	5			16
4.50 - 4.99													0
5.00 - GREATER										5	5		10
TOTAL	33	98	361	985	1826	1182	836	1012	1985	529	1038	108	

Table C20

1980 Through 1985 Monthly Joint Distribution of

H_{mo} versus T_p for Gage 630

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	141	16		141	63		156	78	266	31	47		939
0.50 - 0.99	63	266	266	438	423	344	203	344	986	110	282		3725
1.00 - 1.49			141	563	642	266	63	110	610		94		2489
1.50 - 1.99			31	235	548	313	47	78	282	16	63		1613
2.00 - 2.49				16	156	235	78	31	172	63	31	16	798
2.50 - 2.99						94	78	31	47	31	63		344
3.00 - 3.49							31		31				62
3.50 - 3.99													0
4.00 - 4.49									16				16
4.50 - 4.99									16				16
5.00 - GREATER													0
TOTAL	204	282	438	1393	1832	1252	656	672	2426	251	580	16	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49					35		105		53	18	175		386
0.50 - 0.99	18	70	105	263	455	175	333	665	1278	18	210	18	3608
1.00 - 1.49		18	105	473	613	228	333	350	718	140	245		3223
1.50 - 1.99				175	333	210	105	123	228	105	175		1454
2.00 - 2.49				105	105	35	35	88	140	88	158		754
2.50 - 2.99						53			175	35	105		368
3.00 - 3.49								18	53	18	35		124
3.50 - 3.99								18	18				36
4.00 - 4.49									53				53
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	18	88	210	1016	1541	701	911	1262	2716	422	1103	18	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	16			16	62	16	62	47	172	94	94		579
0.50 - 0.99		62	281	406	437	437	390	640	827	234	281		3995
1.00 - 1.49			187	359	499	390	281	234	749	94	484		3277
1.50 - 1.99				218	265	78	47	78	265	140	187		1278
2.00 - 2.49				16	47	47	62	62	94	62	94		484
2.50 - 2.99					31			16	16	31	62		156
3.00 - 3.49							16	31	62	16			125
3.50 - 3.99								31	16		16		63
4.00 - 4.49							16				16		32
4.50 - 4.99									16				16
5.00 - GREATER													0
TOTAL	16	62	468	1015	1341	968	874	1139	2217	671	1234	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0- 2.9	3.0- 3.9	4.0- 4.9	5.0- 5.9	6.0- 6.9	7.0- 7.9	8.0- 8.9	9.0- 9.9	10.0- 11.9	12.0- 13.9	14.0- 15.9	16.0- LONGER	
0.00 - 0.49		16	32	32	48	16	419	306	177	81	113		1240
0.50 - 0.99	129	177	258	467	531	531	628	580	1304	354	354		5313
1.00 - 1.49		16	129	225	386	354	145	322	483	97	161		2318
1.50 - 1.99				97	161	129	48	81	177	16	129		838
2.00 - 2.49				16	32		32	81	48				209
2.50 - 2.99						16	32						48
3.00 - 3.49								16					16
3.50 - 3.99							16						16
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	129	209	419	837	1158	1046	1320	1386	2189	548	757	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0- 2.9	3.0- 3.9	4.0- 4.9	5.0- 5.9	6.0- 6.9	7.0- 7.9	8.0- 8.9	9.0- 9.9	10.0- 11.9	12.0- 13.9	14.0- 15.9	16.0- LONGER	
0.00 - 0.49	15	15	15	92	108	185	246	262	200	15	31		1184
0.50 - 0.99		185	462	692	646	800	1277	1246	769	15	123		6215
1.00 - 1.49			108	215	400	215	323	215	400		[illegible]		1953
1.50 - 1.99			15	46	108	31	138		77	15	31		461
2.00 - 2.49				31	15	77		15		15	15		168
2.50 - 2.99										15			15
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	15	200	600	1076	1277	1308	1984	1738	1446	75	277	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0- 2.9	3.0- 3.9	4.0- 4.9	5.0- 5.9	6.0- 6.9	7.0- 7.9	8.0- 8.9	9.0- 9.9	10.0- 11.9	12.0- 13.9	14.0- 15.9	16.0- LONGER	
0.00 - 0.49	34	34	67	84	303	420	639	706	252	17	17		2573
0.50 - 0.99	34	134	471	723	773	672	1160	1025	773	101	17		5883
1.00 - 1.49			50	151	185	185	269	134	134		84		1192
1.50 - 1.99			17	17	84	67	17	17	67				286
2.00 - 2.49					17	17	17	17					68
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	68	168	605	975	1362	1361	2102	1899	1226	118	118	0	

(Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	16	33	65	98	277	277	783	1028	408	196	326	33	3540
0.50 - 0.99	33	114	228	457	848	669	946	1109	489	326	82	98	5399
1.00 - 1.49		33	49	228	245	131	82	65					833
1.50 - 1.99				82	16	33	49						180
2.00 - 2.49				16			16						32
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	49	180	342	881	1386	1110	1876	2202	897	522	408	131	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		17	51	84	169	321	524	676	473	101	169		2585
0.50 - 0.99	17	51	236	557	676	878	1402	845	642	220	253		5777
1.00 - 1.49			51	236	270	287	118	68	51				1081
1.50 - 1.99				34	135	68	34		17		34		322
2.00 - 2.49				17	17	17	34		17		17		119
2.50 - 2.99					17		17		17		17		68
3.00 - 3.49						17			17				34
3.50 - 3.99								17					17
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	17	68	338	928	1284	1588	2129	1606	1234	321	490	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		16	16	48	16	16	48	288	401	192	80	16	1137
0.50 - 0.99		48	160	256	513	417	481	641	1266	208	240		4230
1.00 - 1.49			80	465	593	417	401	272	465	80	208	16	2997
1.50 - 1.99			16	64	321	144	64	176	64	16	112		977
2.00 - 2.49				48	96	32	16	48	112	48	32		432
2.50 - 2.99						48	32	16					96
3.00 - 3.49								16	16	16	16		64
3.50 - 3.99									16	16	16		48
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										16			16
TOTAL	0	64	272	881	1539	1074	1042	1457	2340	592	704	32	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	14				14	57	142	127	297	42	156		849
0.50 - 0.99		42	142	283	425	411	510	368	977	198	425	14	3795
1.00 - 1.49			99	538	425	255	113	184	453	127	212		2406
1.50 - 1.99				127	482	99	71	85	184	127	312	57	1544
2.00 - 2.49				14	113	269	57	57	184	57	127	14	892
2.50 - 2.99					14	113	28	85	42	14	57		353
3.00 - 3.49						14			14		42		70
3.50 - 3.99								28		28			56
4.00 - 4.49									28				28
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	14	42	241	962	1473	1218	921	934	2179	593	1331	85	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	19	19	19	38	56	94	56	169	151	94	207		922
0.50 - 0.99	38	38	452	565	584	527	339	490	829	226	226	94	4408
1.00 - 1.49		19	75	245	734	395	207	301	471	19	113	56	2635
1.50 - 1.99				188	301	207	94	38	113	94	19	19	1073
2.00 - 2.49				38	56	75	169	38	38	19	19		452
2.50 - 2.99						38	19	38	75		19		189
3.00 - 3.49							38	94		19	19		170
3.50 - 3.99									75	38	19		132
4.00 - 4.49										19			19
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	57	76	546	1074	1731	1336	922	1168	1752	528	641	169	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		17	68	68	17	17	85	186	186	203	457	17	1321
0.50 - 0.99	34	169	135	338	795	254	203	423	964	135	220	68	3738
1.00 - 1.49			135	389	677	389	186	135	406	34	186		2537
1.50 - 1.99				135	592	118	85	68	152		51		1201
2.00 - 2.49					254	186	34	85	118	68	85		830
2.50 - 2.99						34		34	51		17		136
3.00 - 3.49							68	17	34		17		136
3.50 - 3.99								17	51				68
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER										17	17		34
TOTAL	34	186	338	930	2335	998	661	965	1962	457	1050	85	

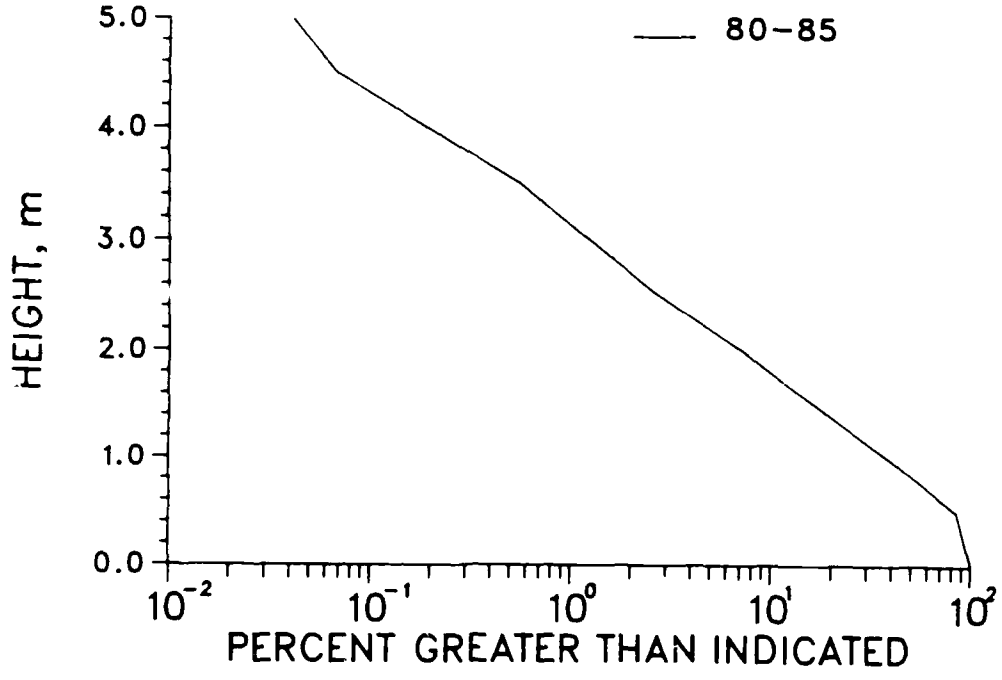


Figure C29. 1980 through 1985 annual cumulative distribution of H_{mo} for Gage 630

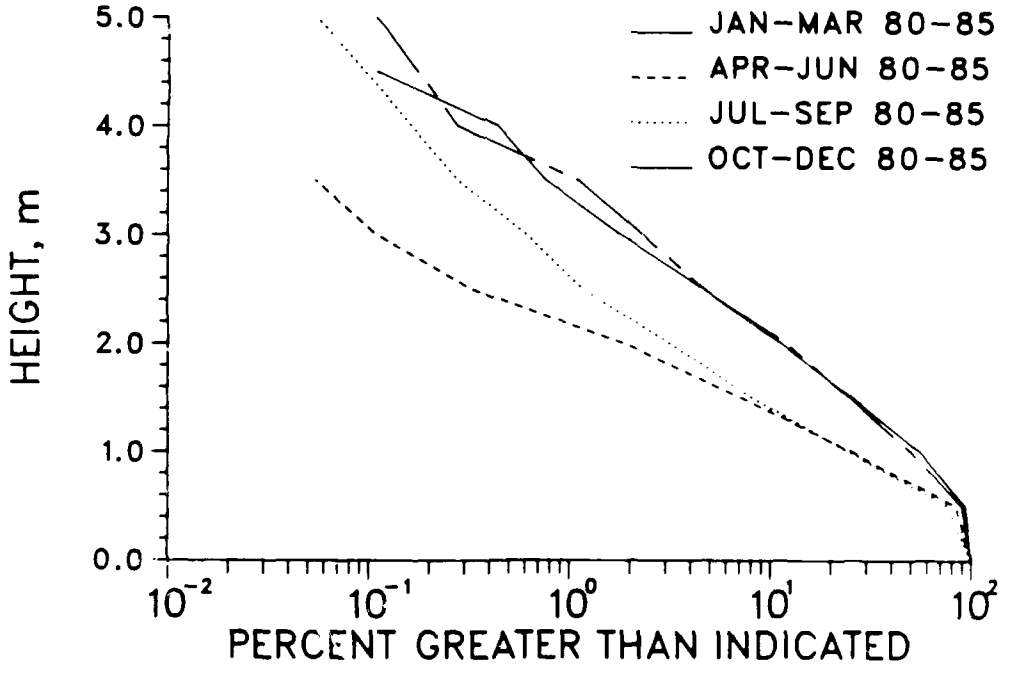
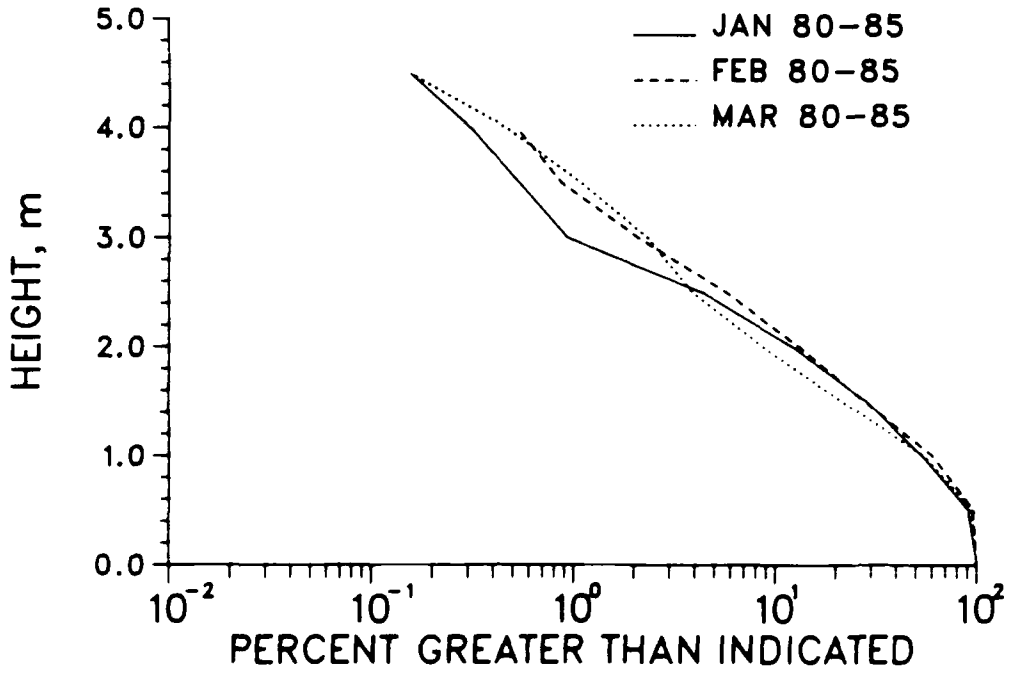


Figure C30. 1980 through 1985 seasonal cumulative distribution of H_{mo} for Gage 630



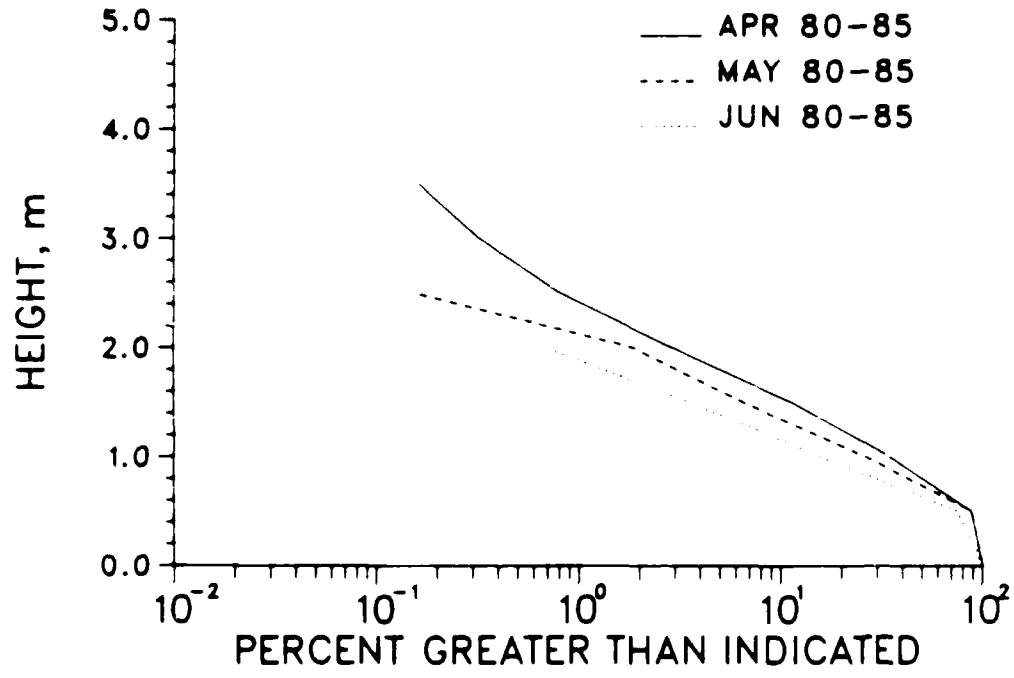
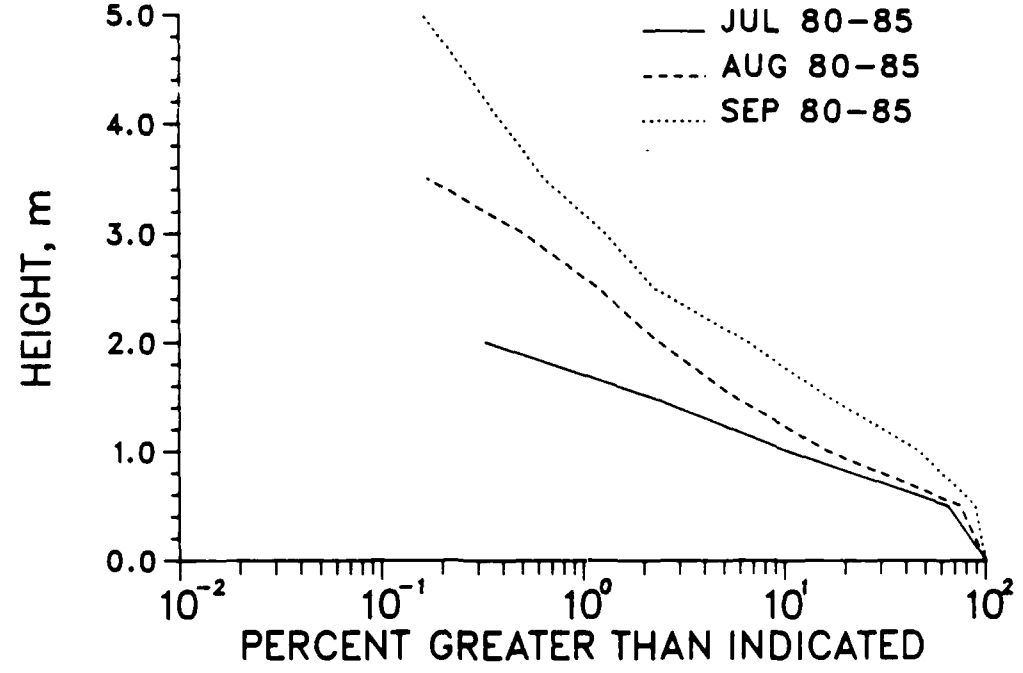


Figure C31. 1980 through 1985 monthly cumulative distribution of H_{mo} for Gage 630 (Continued)



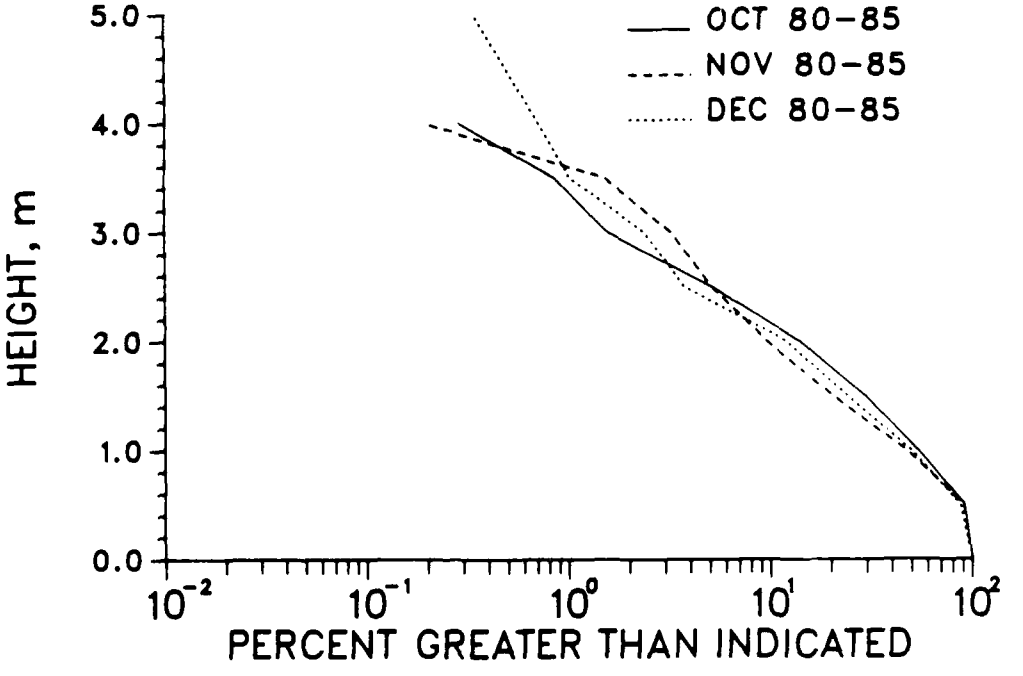


Figure C31. (Concluded)

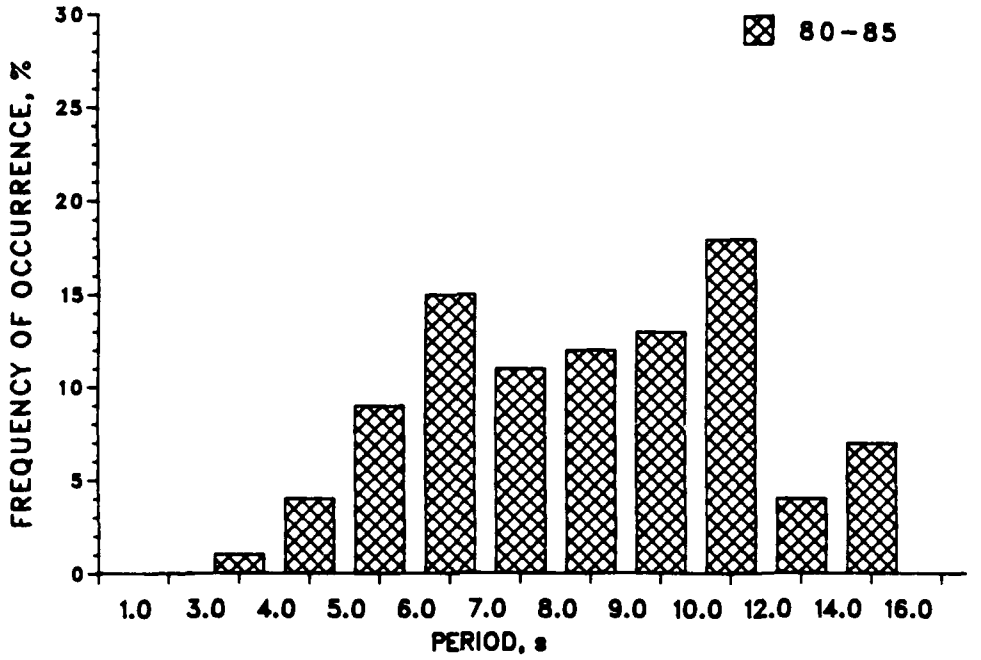


Figure C32. 1980 through 1985 annual distribution of T_p for Gage 630

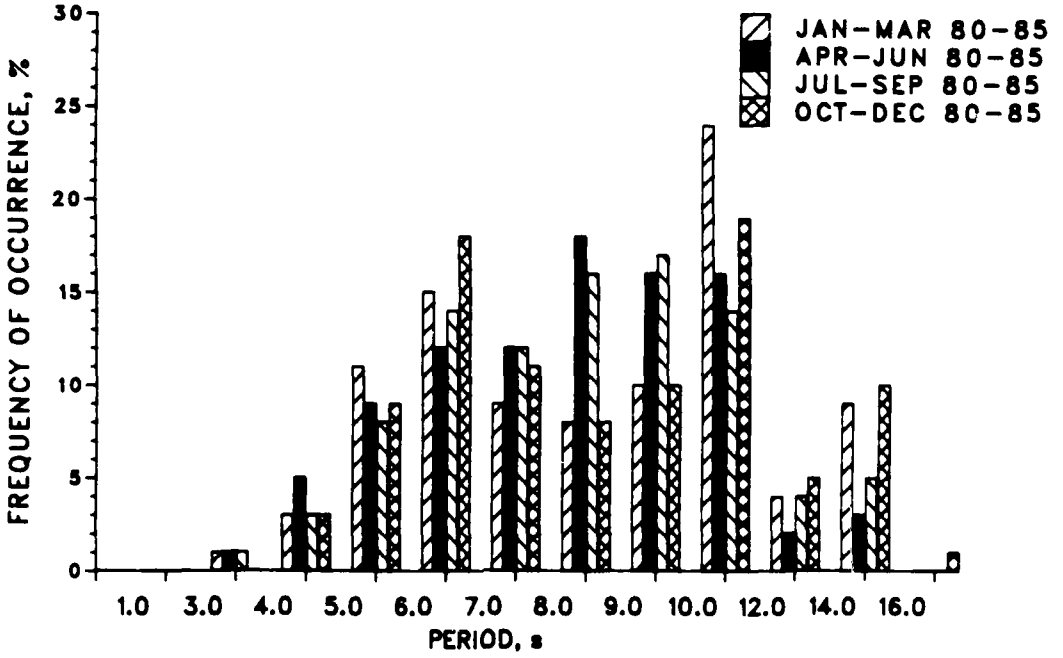
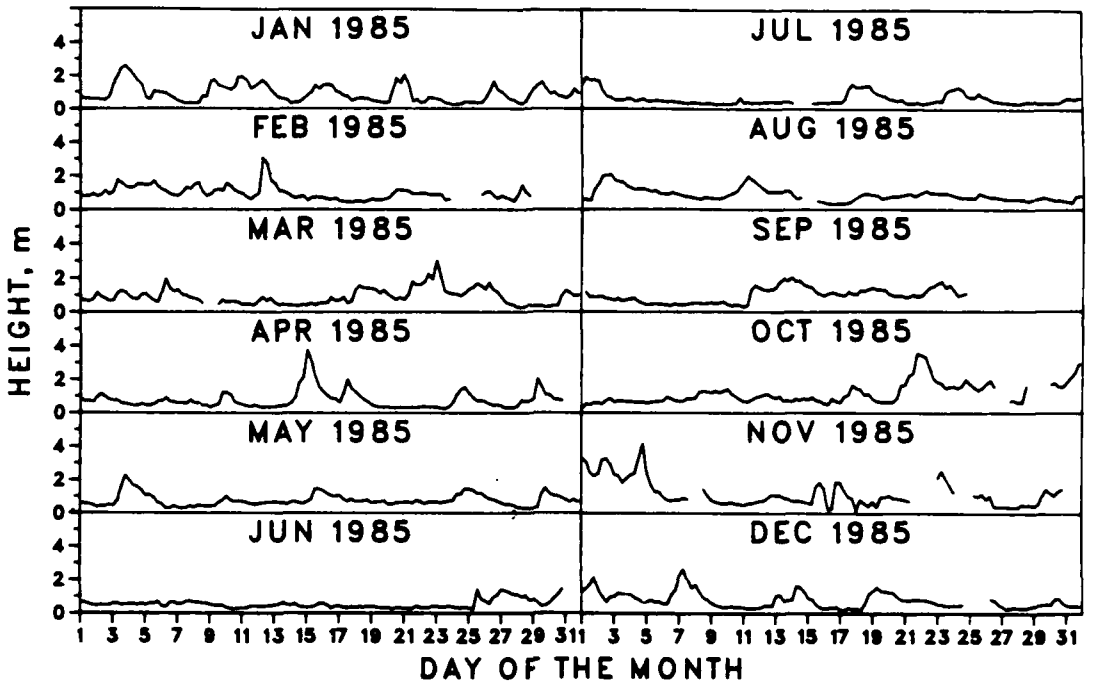


Figure C33. 1980 through 1985 seasonal distribution of T_p for Gage 630

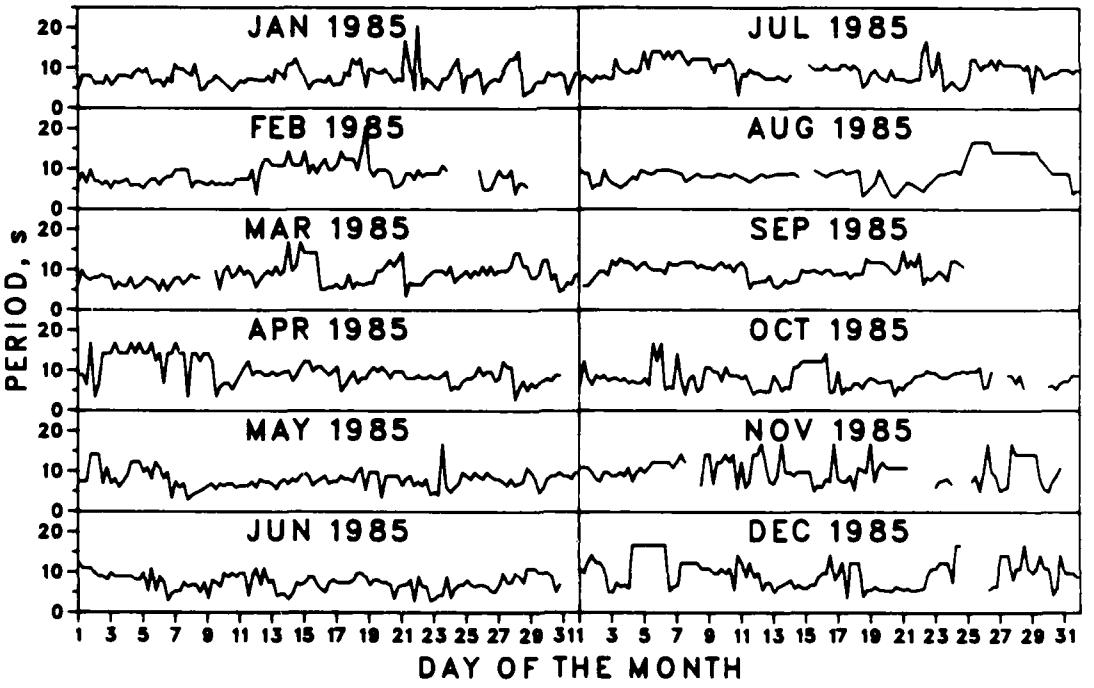
Table C21

1980 Through 1985 Persistence of H_{mo} for Gage 630

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	24	20	18				12			10				8					
1.0	50	33	25	18	13	10	8				3								
1.5	37	21	11	7	5														
2.0	21	11	6			1													
2.5	11	5	2																
3.0	5	3																	
3.5	3	2																	
4.0+	1																		



a. Wave height



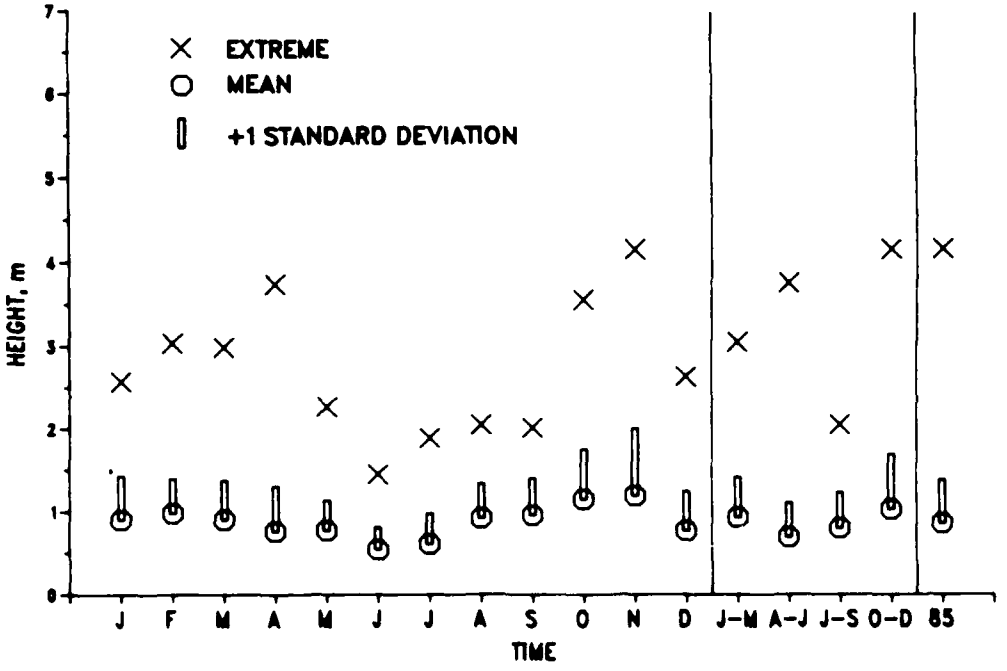
b. Wave period

Figure C34. Time-history of H_{mo} and T_p for Gage 640

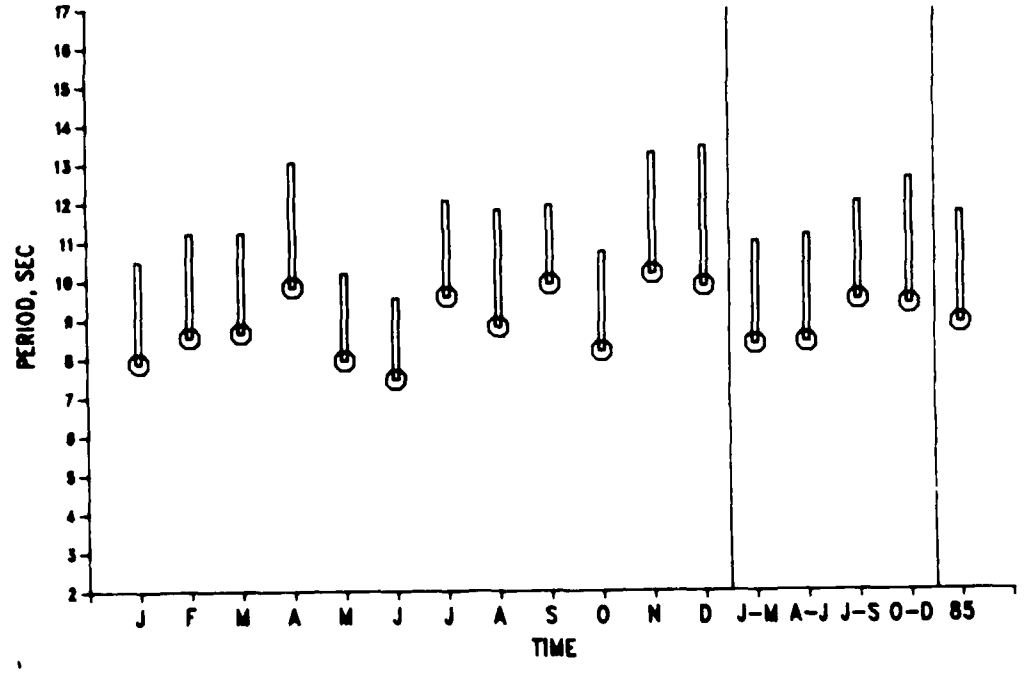
Table C22

1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 640

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	0.9	0.5	7.8	2.6	2.6	3	114
FEB	1.0	0.4	8.5	2.7	3.0	12	103
MAR	0.9	0.5	8.6	2.6	3.0	23	121
APR	0.8	0.5	9.8	3.2	3.7	15	117
MAY	0.8	0.4	7.9	2.3	2.3	3	124
JUN	0.5	0.3	7.4	2.1	1.4	30	118
JUL	0.6	0.4	9.5	2.5	1.9	1	120
AUG	0.9	0.4	8.7	3.0	2.0	2	71
SEP	0.9	0.4	9.8	2.0	2.0	14	93
OCT	1.1	0.6	8.1	2.6	3.5	21	111
NOV	1.2	0.8	10.1	3.1	4.1	4	102
DEC	0.8	0.5	9.8	3.6	2.6	7	113
JAN-MAR	0.9	0.5	8.3	2.6	3.0	FEB	338
APR-JUN	0.7	0.4	8.3	2.8	3.7	APR	359
JUL-SEP	0.8	0.4	9.4	2.5	2.0	AUG	284
OCT-DEC	1.0	0.7	9.3	3.2	4.1	NOV	326
ANNUAL	0.9	0.5	8.8	2.9	4.1	NOV	1307



a. Wave height



b. Wave period

Figure C35. 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 640

Table C23

1985 Annual Joint Distribution of H_{mo} versus T_p for Gage 640

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	31	69	46	92	191	245	604	505	459	275	314	8	2839
0.50 - 0.99	8	138	168	444	436	344	979	490	451	268	428	8	4162
1.00 - 1.49		8	99	406	383	199	321	207	199	8	77		1907
1.50 - 1.99				130	222	92	99	69	46		54		712
2.00 - 2.49				15	31	46	61	46	23	8	8		238
2.50 - 2.99						8	15	15	8		15		61
3.00 - 3.49						8		31	15		8		62
3.50 - 3.99							8				8		16
4.00 - 4.49									8				8
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	39	215	313	1087	1263	942	2087	1363	1209	559	912	16	

Table C24

1985 Seasonal Joint Distribution of H_{mo} versus T_p for Gage 640

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		59	30			89	473	385	355	207	296	30	1924
0.50 - 0.99		148	178	592	533	385	1302	592	355	148	178	30	4441
1.00 - 1.49		30	148	680	740	148	325	207	178		30		2486
1.50 - 1.99				59	503	89	118	30	30		30		859
2.00 - 2.49					30	30	89	30					179
2.50 - 2.99							30	30			30		90
3.00 - 3.49								30					30
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	237	356	1331	1806	741	2337	1304	918	355	564	60	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	111	167	111	139	557	418	1058	641	251	251	139		3843
0.50 - 0.99	28	139	251	474	613	446	1142	390	306	334	251		4374
1.00 - 1.49	.	.	56	195	306	195	334	195	56		28	.	1365
1.50 - 1.99	.	.	.	28	56	28	56	.	28		56	.	252
2.00 - 2.49	.	.	.	28	.	28	.	28	28		.	.	112
2.50 - 2.99	.	.	.	.	.	.	.	.	.		.	.	0
3.00 - 3.49	.	.	.	.	.	.	.	.	.		28	.	28
3.50 - 3.99	.	.	.	.	.	.	.	.	.		28	.	28
4.00 - 4.49	.	.	.	.	.	.	.	.	.		.	.	0
4.50 - 4.99	.	.	.	.	.	.	.	.	.		.	.	0
5.00 - GREATER	.	.	.	.	.	.	.	.	.		.	.	0
TOTAL	139	306	418	864	1532	1115	2590	1254	669	585	530	0	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			35	35	106	317	563	599	1197	352	458		3662
0.50 - 0.99		176	35	106	176	176	775	810	599	246	352		3451
1.00 - 1.49			106	246	176	246	493	282	387		70		2006
1.50 - 1.99				176	141	246	106	70	35				774
2.00 - 2.49					35	35		35					105
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	176	176	563	634	1020	1937	1796	2218	598	880	0	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		31		184	61	153	276	399	153	307	399		1963
0.50 - 0.99		92	184	552	368	337	644	215	583	337	951		4263
1.00 - 1.49			92	491	276	215	153	153	215	31	184		1810
1.50 - 1.99				276	184	31	123	184	92		123		1013
2.00 - 2.49				31	61	92	153	92	61	31	31		552
2.50 - 2.99						31	31	31	31		31		155
3.00 - 3.49						31		92	61				184
3.50 - 3.99							31						31
4.00 - 4.49									31				31
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	123	276	1534	950	890	1411	1166	1227	706	1719	0	

Table C25

1985 Monthly Joint Distribution of H_{mo} Versus T_p for Gage 640

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		175	88			175	789	526	439	88	263	88	2631
0.50 - 0.99		263	439	614	526	263	1228	175	175		263		3946
1.00 - 1.49			175	439	702	175	263	88			88		1930
1.50 - 1.99				88	789	88	88						1053
2.00 - 2.49					88	88	175						351
2.50 - 2.99							88						88
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	438	702	1141	2105	789	2631	789	614	88	614	88	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49													
0.50 - 0.99		194		291	680	583	1262	194	97	194	291		776
1.00 - 1.49			97	1262	777	291	97	1262	777	194	97	97	5437
1.50 - 1.99				97	291	97		194	194				2912
2.00 - 2.49									97		97		679
2.50 - 2.99													0
3.00 - 3.49											97		97
3.50 - 3.99								97					97
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	194	97	1650	1748	971	1359	1747	1165	388	582	97	0

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49						83	579	413	496	331	331		2233
0.50 - 0.99			83	826	413	331	1405	413	165	248	165		4049
1.00 - 1.49		83	165	413	744		579	331	331				2646
1.50 - 1.99					413	83	248	83					827
2.00 - 2.49							83	83					166
2.50 - 2.99								83					83
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	83	248	1239	1570	497	2894	1406	992	579	496	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	LONGER	
0.00 - 0.49	85					85	1368	1026	427	513	427		3931
0.50 - 0.99		256		342	256	256	855	256	171	1026	513		3931
1.00 - 1.49			85	256	342	85	256	171	85				1280
1.50 - 1.99					171	85	85		85				426
2.00 - 2.49				85				85	85				255
2.50 - 2.99													0
3.00 - 3.49											85		85
3.50 - 3.99											85		85
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	85	256	85	683	769	511	2564	1538	853	1539	1110	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	LONGER	
0.00 - 0.49	81	161	81	242	565	161	242	161	81	242			2017
0.50 - 0.99		[illegible]	[illegible]	484	968	887	1855	645	242		161		5646
1.00 - 1.49			81	[illegible]	323	242	726	242	81		81		1937
1.50 - 1.99				81			81				161		323
2.00 - 2.49						81							81
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	81	242	485	968	1856	1371	2904	1048	404	242	403	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	LONGER	
0.00 - 0.49	169	339	254	169	1102	1017	1610	763	254				5677
0.50 - 0.99	85	85	424	593	593	169	678	254	508		85		3474
1.00 - 1.49				169	254	254		169					846
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	254	424	678	931	1949	1440	2288	1186	762	0	85	0	

(Continued)

Table C25 (Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49			83		250	750	1000	1083	1167	750	1083		6166
0 50 - 0 99		83		83	83	417	500	750	250		167		2333
1 00 - 1 49			167	250	250	83	83	83	167				1083
1 50 - 1 99					83	83	167	83					416
2 00 - 2 49													0
2 50 - 2 99													0
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	83	250	333	666	1333	1750	1999	1584	750	1250	0	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49							563	282		141			986
0 50 - 0 99		563	141	141	563		2113	986		704	563		5774
1 00 - 1 49			141	282		141	1268	141					1973
1 50 - 1 99				563	282	141							986
2 00 - 2 49						141		141					282
2 50 - 2 99													0
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	563	282	986	845	423	3944	1550	0	845	563	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2.9	3.0- 3.9	4.0- 4 9	5 0- 5 9	6 0- 6.9	7 0- 7 9	8 0- 8.9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49				108				215	2151				2474
0 50 - 0 99				108			108	753	1505	215	430		3119
1 00 - 1 49				215	215	538	430	645	968		215		3226
1 50 - 1 99				108	108	538	108	108	108				1078
2 00 - 2 49					108								108
2 50 - 2 99													0
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	0	0	539	431	1076	646	1721	4732	215	645	0	

(Continued)

Table C25 (Concluded)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49					90		90			90			270
0 50 - 0 99		180	450	631	541	721	1532	90	180	90	901		5316
1 00 - 1 49			180	360	180	180	180	360	360				1800
1 50 - 1 99				631	270	90	180	450	180				1801
2 00 - 2 49					90	180	90	90					450
2 50 - 2 99							90		90				180
3 00 - 3 49								90					90
3 50 - 3 99							90						90
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	180	630	1622	1171	1171	2252	1080	810	180	901	0	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49				392		196	196	196		392	196		1568
0 50 - 0 99				196	98	196	294	490	784	784	1176		4018
1 00 - 1 49			98	294	294	392	294		196	98	294		1960
1 50 - 1 99				98	98		196	98	98		98		686
2 00 - 2 49				98		98	392	196	196				980
2 50 - 2 99						98		98					196
3 00 - 3 49						98		196	196				490
3 50 - 3 99													0
4 00 - 4 49									98				98
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	0	98	1078	490	1078	1372	1274	1568	1274	1764	0	

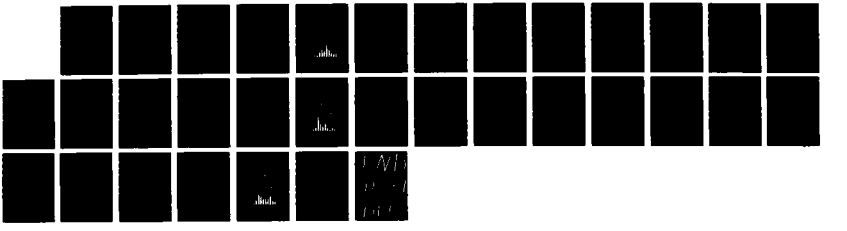
MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

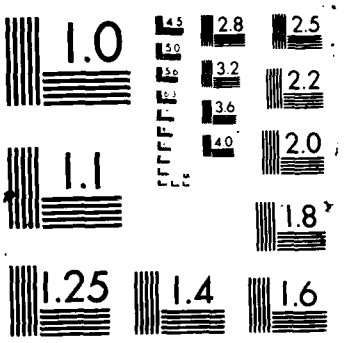
HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0- 2 9	3 0- 3 9	4 0- 4 9	5 0- 5 9	6 0- 6 9	7 0- 7 9	8 0- 8 9	9 0- 9 9	10 0- 11 9	12 0- 13 9	14 0- 15 9	16 0- LONGER	
0 00 - 0 49		88		177	88	265	531	973	442	442	973		3979
0 50 - 0 99		88	88	796	442	88	88	88	796	177	796		3447
1 00 - 1 49				796	354	88		88	88		265		1679
1 50 - 1 99				88	177						265		530
2 00 - 2 49					88					88	88		264
2 50 - 2 99											88		88
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	0	176	88	1857	1149	441	619	1149	1326	707	2475	0	

(Sheet 4 of 4)

AD-A185 894 ANNUAL DATA SUMMARY AND CLIMATOLOGICAL EVALUATION CERC (COASTAL ENGINEERI..(U) COASTAL ENGINEERING RESEARCH CENTER VICKSBURG MS H C MILLER ET AL. SEP 87 2/2

UNCLASSIFIED CERC-87-13-VOL-2-APP-C F/G 8/3 NL

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1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3

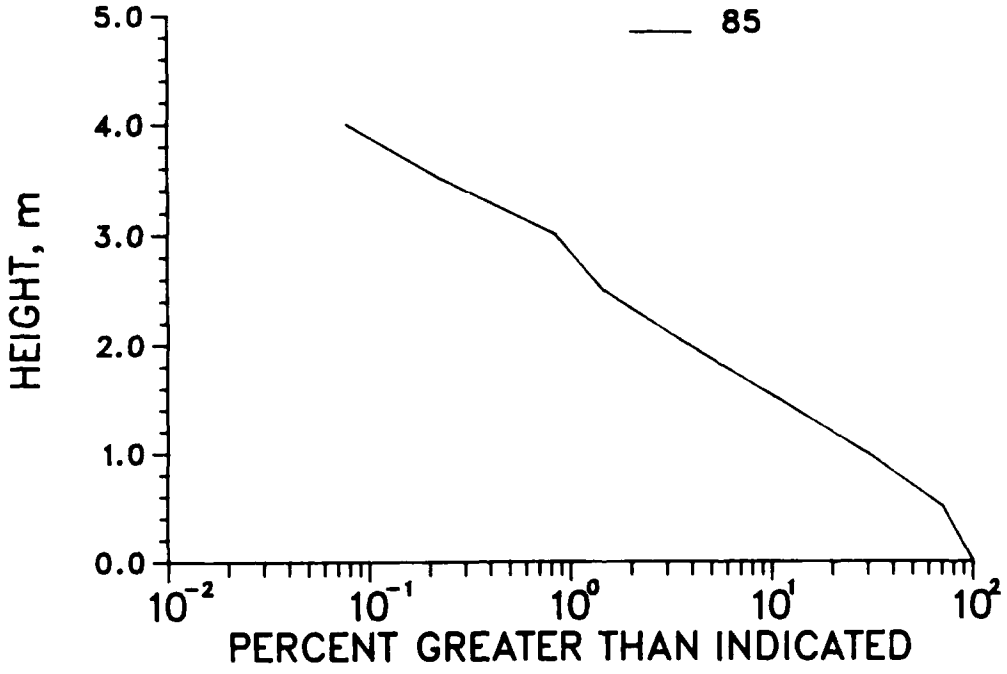


Figure C36. 1985 annual cumulative distribution of H_{mo} for Gage 640

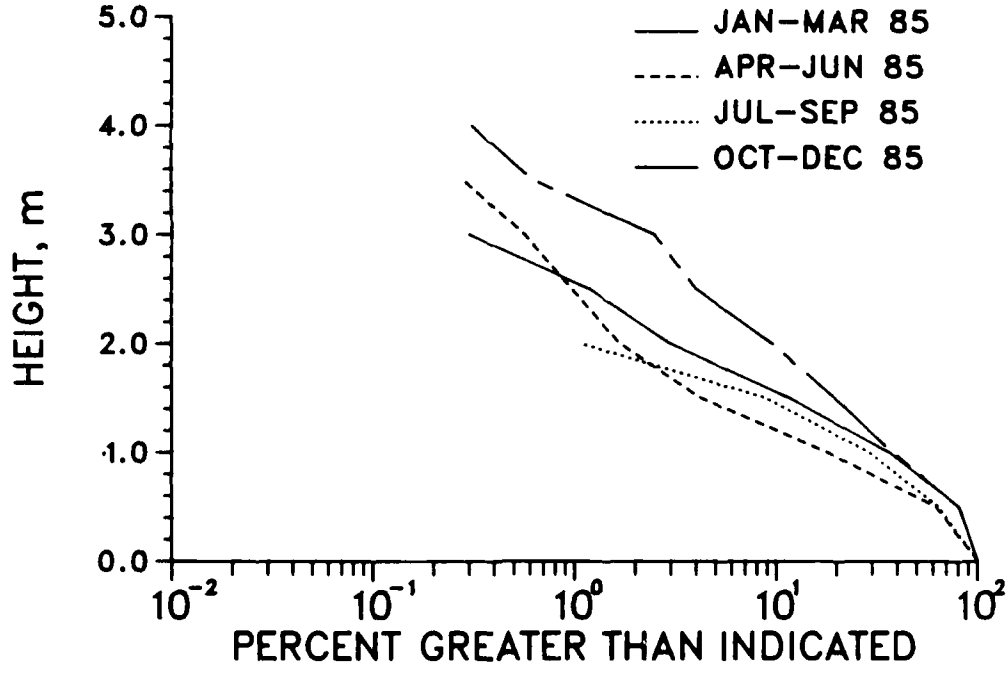
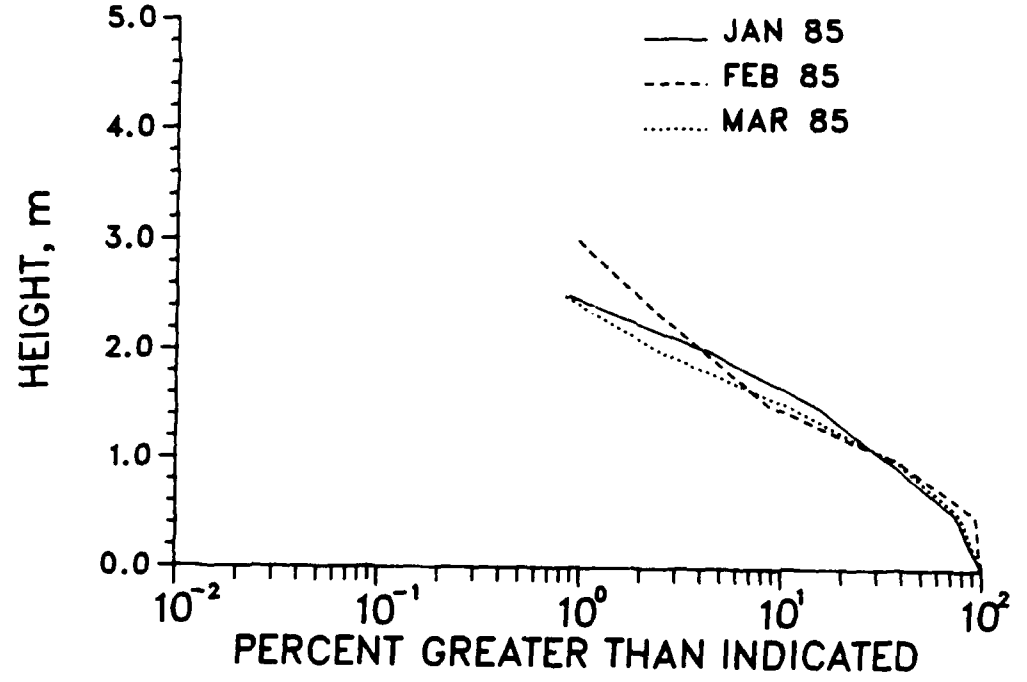


Figure C37. 1985 seasonal cumulative distribution of H_{mo} for Gage 640



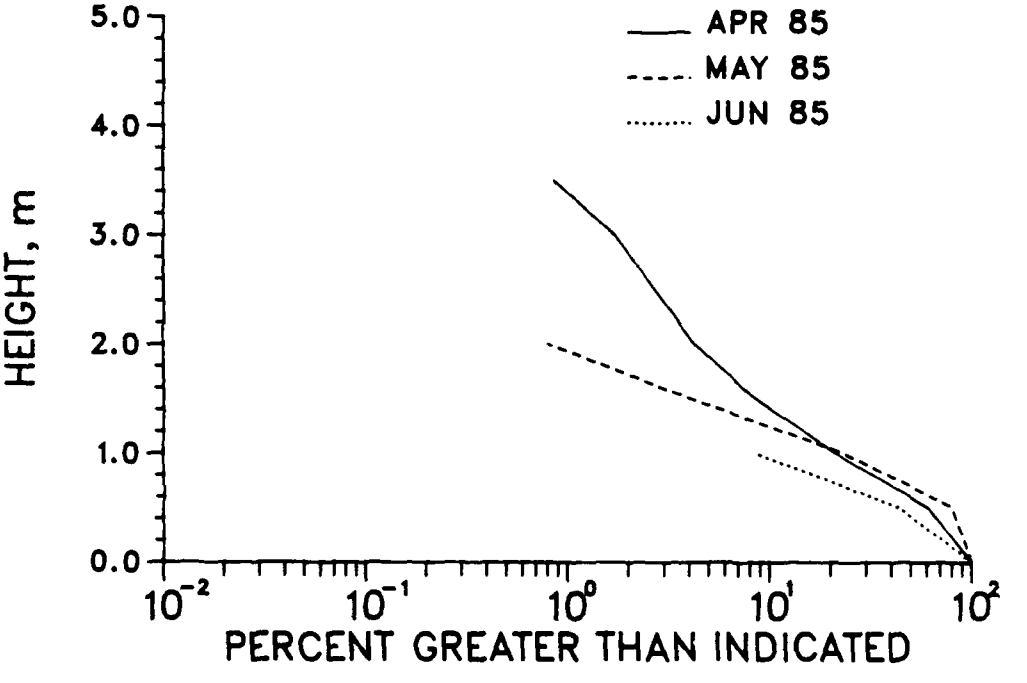
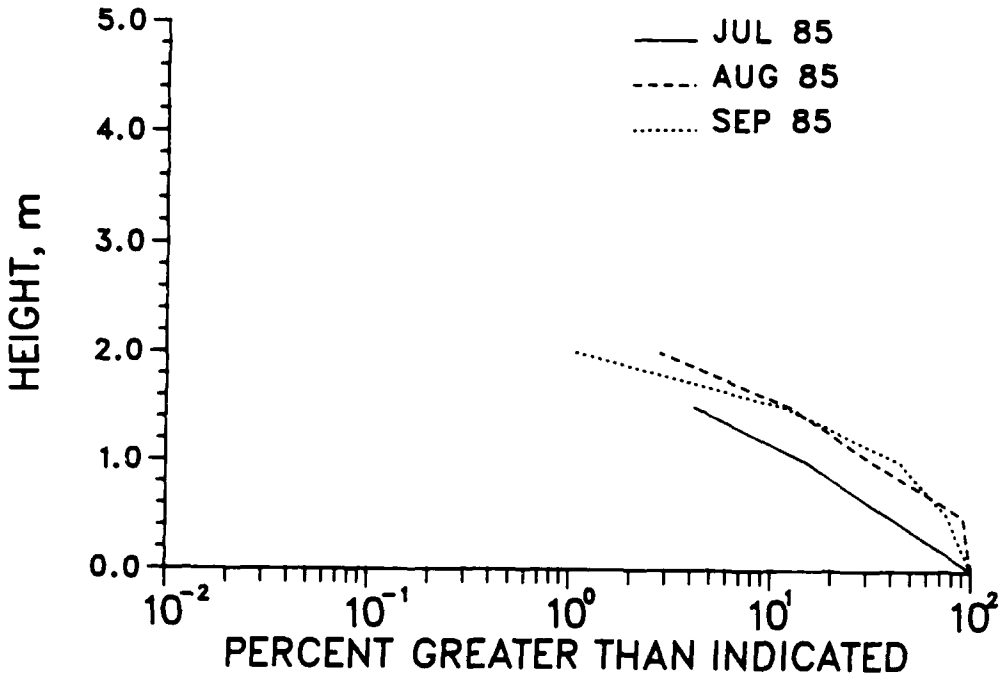


Figure C38. 1985 monthly cumulative distribution of H_{mo} for Gage 640 (Continued)



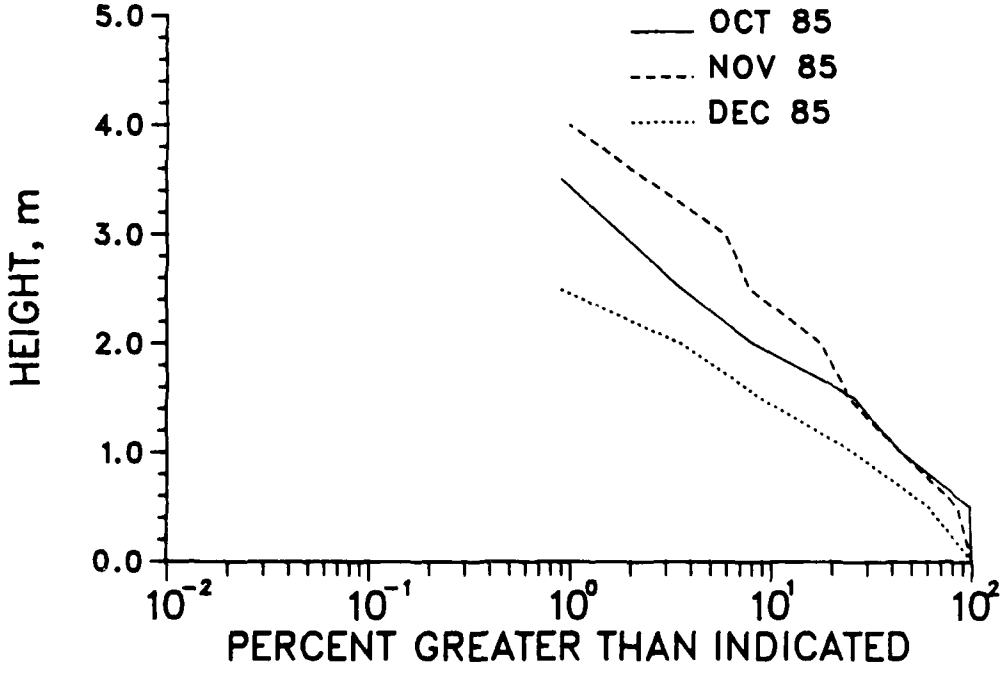


Figure C38. (Concluded)

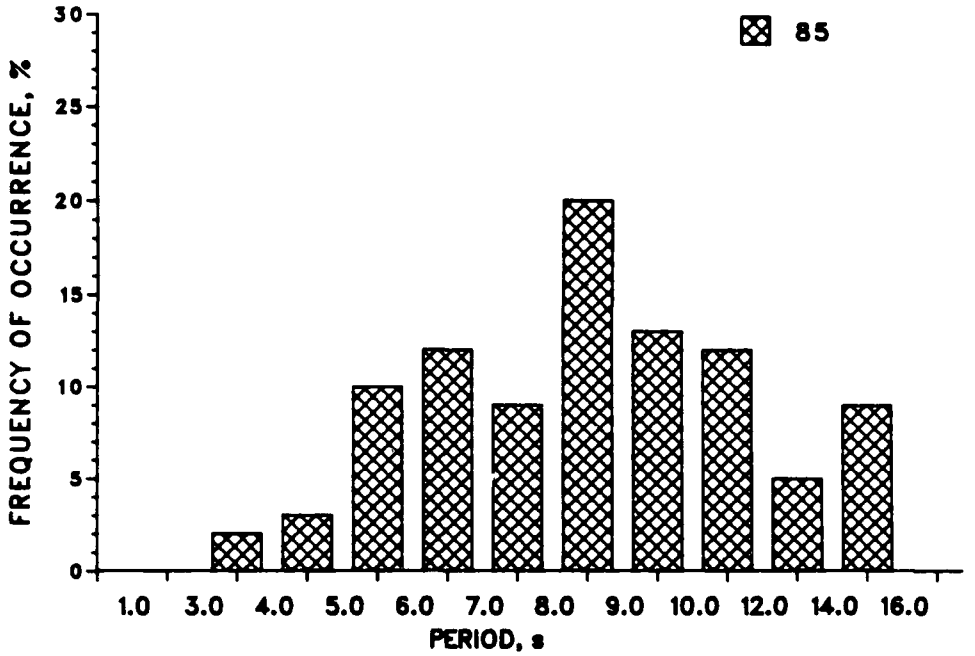


Figure C39. 1985 annual distribution of T_p for Gage 640

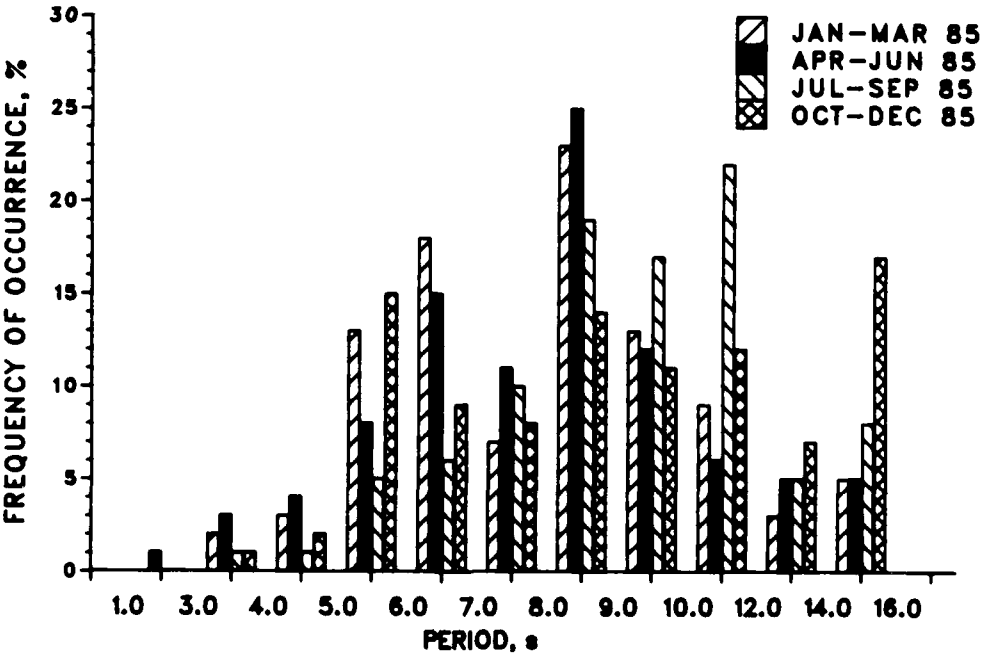
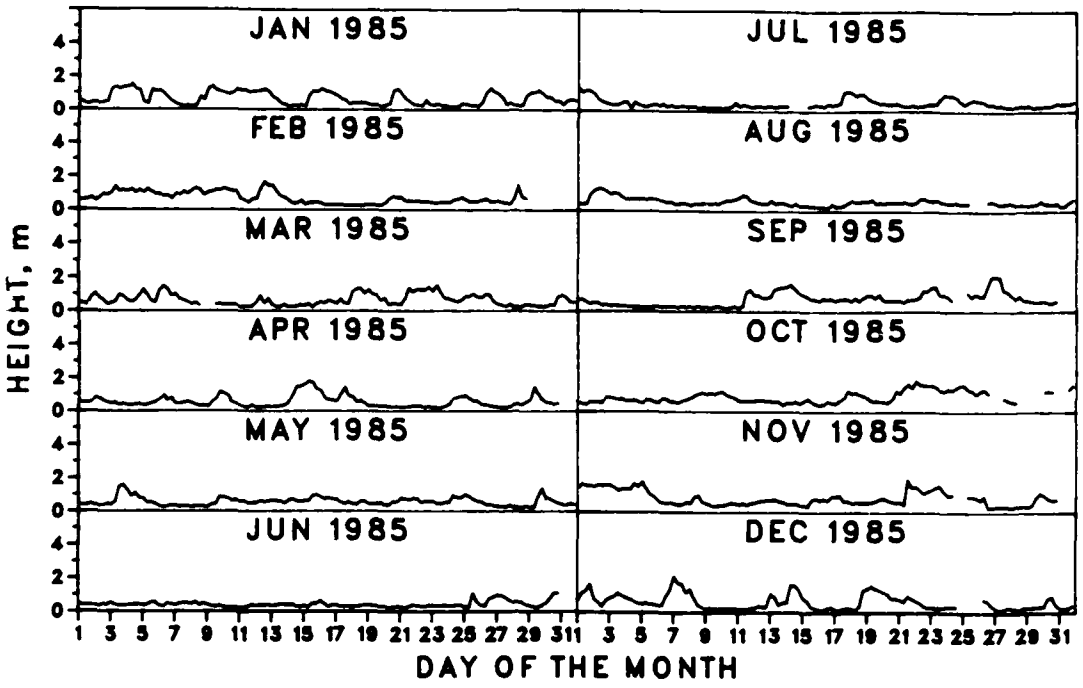


Figure C40. 1985 seasonal distribution of T_p for Gage 640

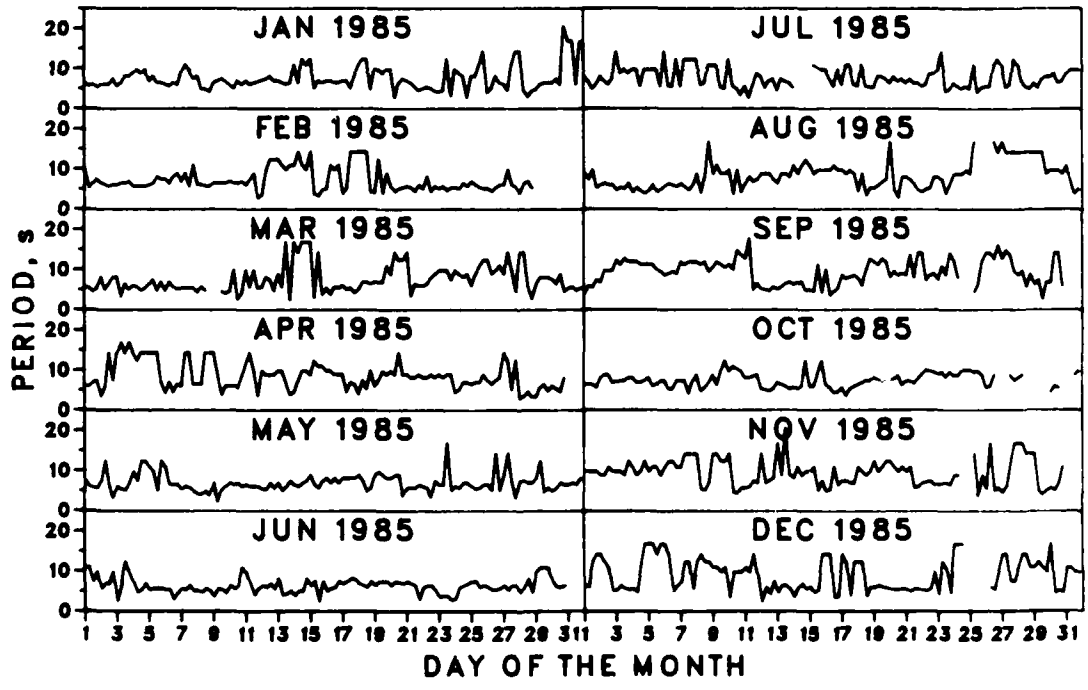
Table C26

1985 Persistence of H_{mo} for Gage 640

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	29	26	23	21	17	16			14	13	11	9	6						5
1.0	49	36	24	14	11	9	7		3	1									
1.5	38	17	6	3			2												
2.0	15	7																	
2.5	10	3	1			1													
3.0	6	3																	
3.5	4	2																	
4.0	2																		



a. Wave height



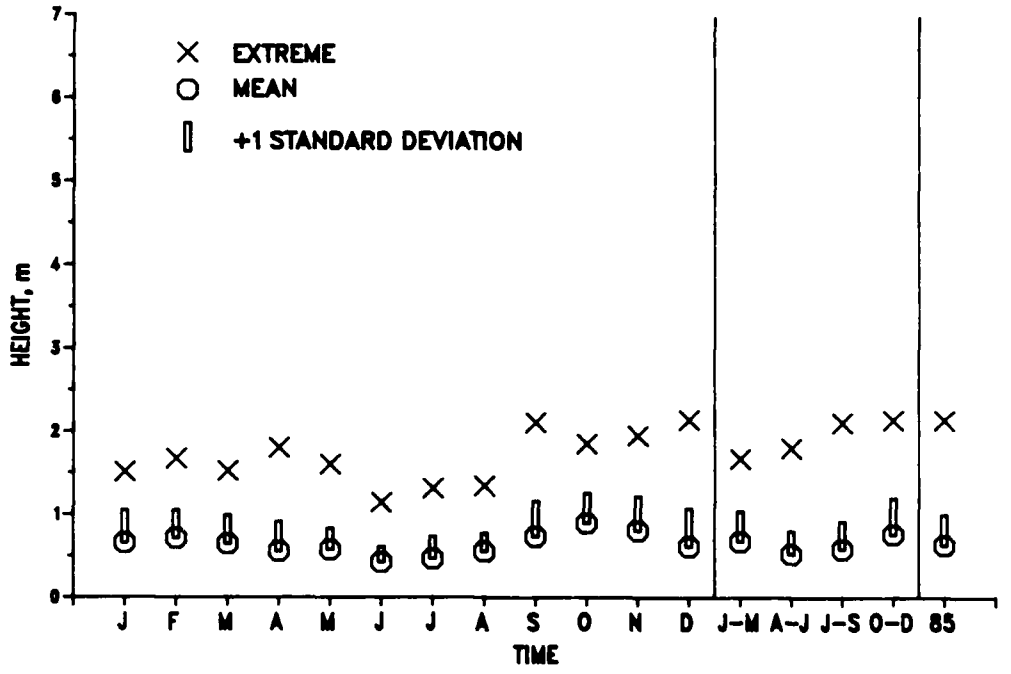
b. Wave period

Figure C41. Time-history of H_{mo} and T_p for Gage 645

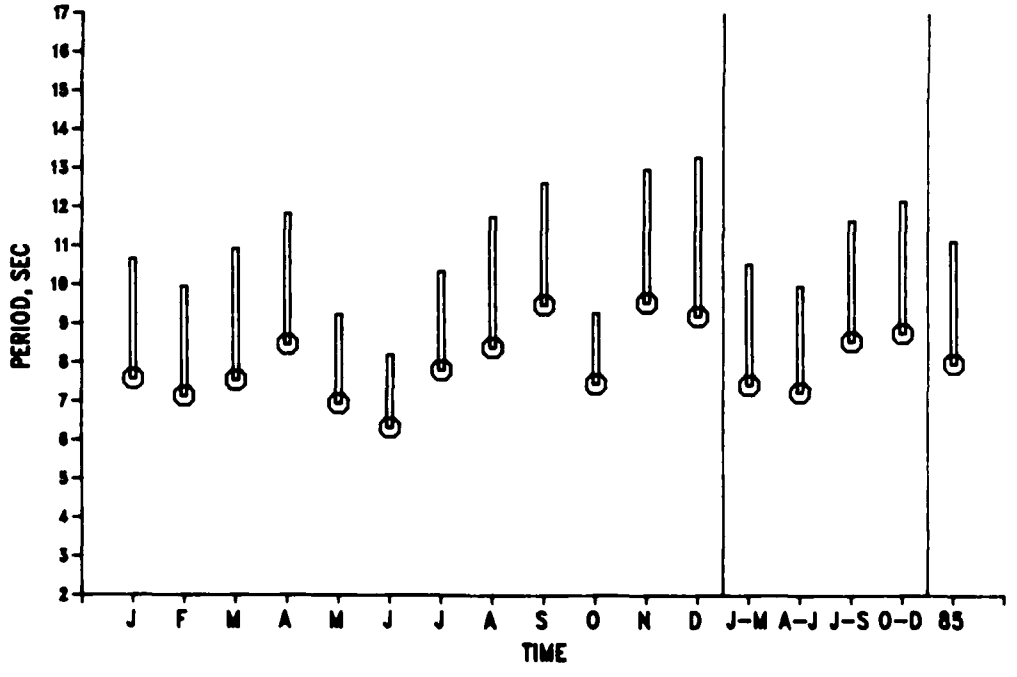
Table C27

1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 645

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	0.6	0.4	7.5	3.1	1.5	4	116
FEB	0.7	0.3	7.1	2.8	1.7	12	111
MAR	0.6	0.4	7.5	3.4	1.5	23	120
APR	0.5	0.4	8.4	3.4	1.8	15	116
MAY	0.6	0.3	6.9	2.3	1.6	3	122
JUN	0.4	0.2	6.3	1.9	1.1	30	115
JUL	0.4	0.3	7.7	2.5	1.3	1	118
AUG	0.5	0.2	8.3	3.4	1.3	2	115
SEP	0.7	0.4	9.4	3.2	2.1	27	117
OCT	0.9	0.4	7.4	1.8	1.8	22	103
NOV	0.8	0.4	9.5	3.4	1.9	21	112
DEC	0.6	0.5	9.1	4.1	2.1	7	112
JAN-MAR	0.7	0.4	7.4	3.1	1.7	FEB	347
APR-JUN	0.5	0.3	7.2	2.7	1.8	APR	353
JUL-SEP	0.6	0.3	8.5	3.1	2.1	SEP	350
OCT-DEC	0.8	0.4	8.7	3.4	2.1	DEC	327
ANNUAL	0.6	0.4	7.9	3.2	2.1	DEC	1377



a. Wave height



b. Wave period

Figure C42. 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 645

Table C28

1985 Annual Joint Distribution of H_{mo} versus T_p for Gage 645

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	102	218	305	857	443	305	639	487	487	501	458	7	4809
0.50 - 0.99	29	167	341	1082	625	269	472	138	167	116	131	15	3552
1.00 - 1.49			65	385	385	80	174	131	65	7	58		1350
1.50 - 1.99				15	51		15	94	36	7	44		262
2.00 - 2.49						7				7	15		29
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	131	385	711	2339	1504	661	1300	850	755	638	706	22	

Table C29

1985 Seasonal Joint Distribution of H_{mo} versus T_p for Gage 645

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	202	288	548	951	144	115	548	346	259	490	403		4294
0.50 - 0.99	29	115	346	1268	663	173	288	144	173		115	29	3343
1.00 - 1.49			58	576	1066	86	288	115	29		58		2276
1.50 - 1.99								58			29		87
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	231	403	952	2795	1873	374	1124	663	461	490	605	29	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	142	425	340	1331	992	623	935	368	198	510	283		6147
0.50 - 0.99	28	198	227	1133	935	255	368	28	28	28	28		3256
1.00 - 1.49			28	198	85			113	28		28		480
1.50 - 1.99					28		28		28		28		112
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	170	623	595	2662	2040	878	1331	509	282	538	367	0	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	29		114	714	486	314	914	857	1029	429	457	29	5372
0.50 - 0.99	57	229	486	829	371	229	600	200	200	257	114		3572
1.00 - 1.49			114	286	143	86	86	57	86	29	29		916
1.50 - 1.99					29						29		58
2.00 - 2.49										29	57		86
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	86	229	714	1829	1029	629	1600	1114	1315	744	686	29	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	31	153	214	398	122	153	122	367	459	581	703		3303
0.50 - 0.99		122	306	1101	520	428	642	183	275	183	275	31	4066
1.00 - 1.49			61	489	245	153	336	245	122		122		1773
1.50 - 1.99				61	153		31	336	122	31	92		826
2.00 - 2.49						31							31
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	31	275	581	2049	1040	765	1131	1131	978	795	1192	31	

Table C30

1985 Monthly Joint Distribution of H_{mo} Versus T_p for Gage 645

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	259	172	603	776	259	172	690	517	517	259	517		4741
0.50 - 0.99			345	690	948	86					172	86	2327
1.00 - 1.49			86	517	1379	259	517	86					2844
1.50 - 1.99								86					86
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	259	172	1034	1983	2586	517	1207	689	517	259	689	86	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		450	360	1351			270	180	270	631	90		3602
0.50 - 0.99	90	180	270	1622	631	270	270	270	270				3873
1.00 - 1.49				811	1171		90	90	90		180		2432
1.50 - 1.99											90		90
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	90	630	630	3784	1802	270	630	540	630	631	360	0	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	333	250	667	750	167	167	667	333		583	583		4500
0.50 - 0.99		167	417	1500	417	167	583	167	250		167		3835
1.00 - 1.49			83	417	667		250	167					1584
1.50 - 1.99								83					83
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	333	417	1167	2667	1251	334	1500	750	250	583	750	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	86	259	345	431	345	259	1724	603		1379	431		5862
0.50 - 0.99		431	259	603	862	345	345	86		86			3017
1.00 - 1.49			86	259	172			259	86				862
1.50 - 1.99							86		86		86		258
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	86	690	690	1293	1379	604	2155	948	172	1465	517	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	82	328	164	1148	902	492	738	164	82	164	328		4592
0.50 - 0.99		164	246	1967	1475	328	656		82		82		5000
1.00 - 1.49				164				82			82		328
1.50 - 1.99					82								82
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	82	492	410	3279	2459	820	1394	246	164	164	492	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	261	696	522	2435	1739	1130	348	348	522		87		8088
0.50 - 0.99	87		174	783	435	87	87						1653
1.00 - 1.49				174	87								261
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	348	696	696	3392	2261	1217	435	348	522	0	87	0	

(Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	85		85	1864	1102	678	932	1017	678	254	678		7373
0.50 - 0.99		85	254	847	169		254	169	169				1947
1.00 - 1.49				424	85		85		85				679
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	85	85	339	3135	1356	678	1271	1186	932	254	678	0	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			261	261	348	174	1739	870	522	783	435		5393
0.50 - 0.99	87	435	783	957	435	348	696	174		174	87		4176
1.00 - 1.49				348	87								435
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	87	435	1044	1566	870	522	2435	1044	522	957	522	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49						85	85	684	1880	256	256	85	3331
0.50 - 0.99	85	171	427	684	513	342	855	256	427	598	256		4614
1.00 - 1.49			342	85	256	256	171	171	171	85	85		1622
1.50 - 1.99					85						85		170
2.00 - 2.49										85	171		256
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	85	171	769	769	854	683	1111	1111	2478	1024	853	85	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49				388	291	97	97				194		1067
0.50 - 0.99		97	485	1262	680	1068	1359	97	97				5145
1.00 - 1.49			97	583	485	388	680	583	97		97		3010
1.50 - 1.99					97			388	291				776
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	97	582	2233	1553	1553	2136	1068	485	0	291	0	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49			268	536		89	179	179	357	714	536		2858
0.50 - 0.99		179	179	625	625	268	625	446	714	357	536	89	4643
1.00 - 1.49				179	179	89	357	179	268		89		1340
1.50 - 1.99				89	179		89	625	89		89		1160
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	179	447	1429	983	446	1250	1429	1428	1071	1250	89	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	89	446	357	268	89	268	89	893	982	982	1339		5802
0.50 - 0.99		89	268	1429	268					179	268		2501
1.00 - 1.49			89	714	89						179		1071
1.50 - 1.99				89	179					89	179		536
2.00 - 2.49						89							89
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	89	535	714	2500	625	357	89	893	982	1250	1965	0	

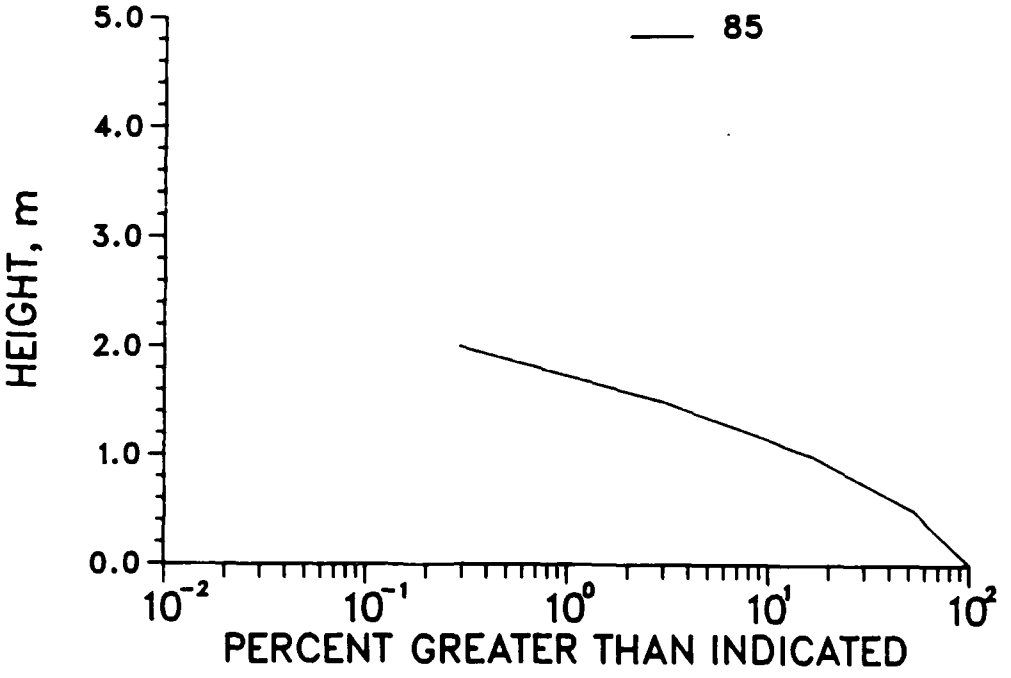


Figure C43. 1985 annual cumulative distribution of H_{mo} for Gage 645

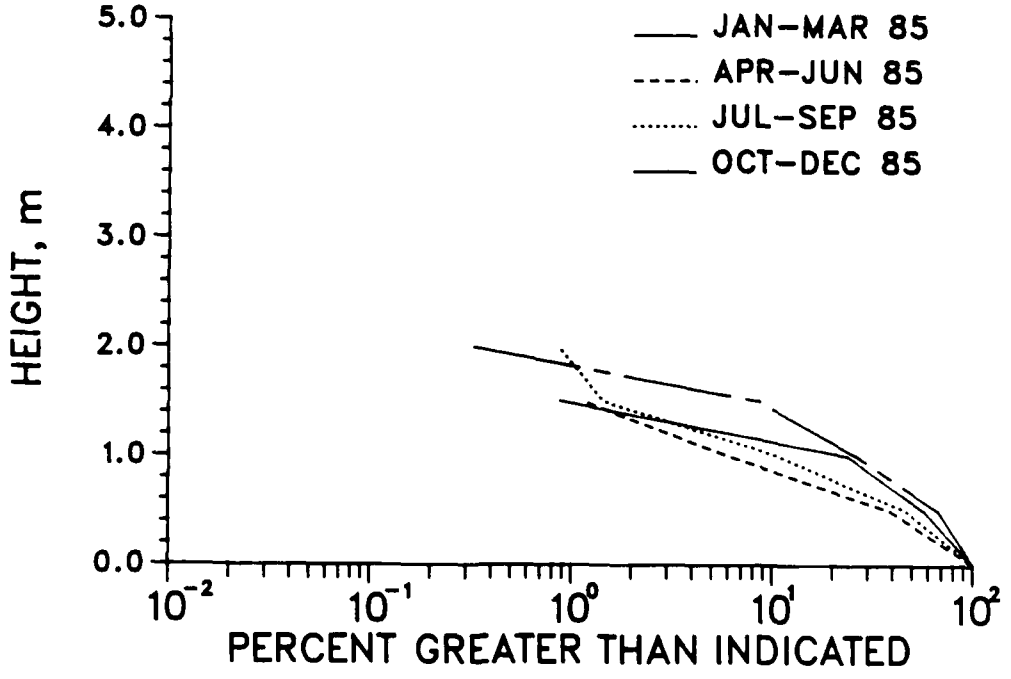


Figure C44. 1985 seasonal cumulative distribution of H_{mo} for Gage 645

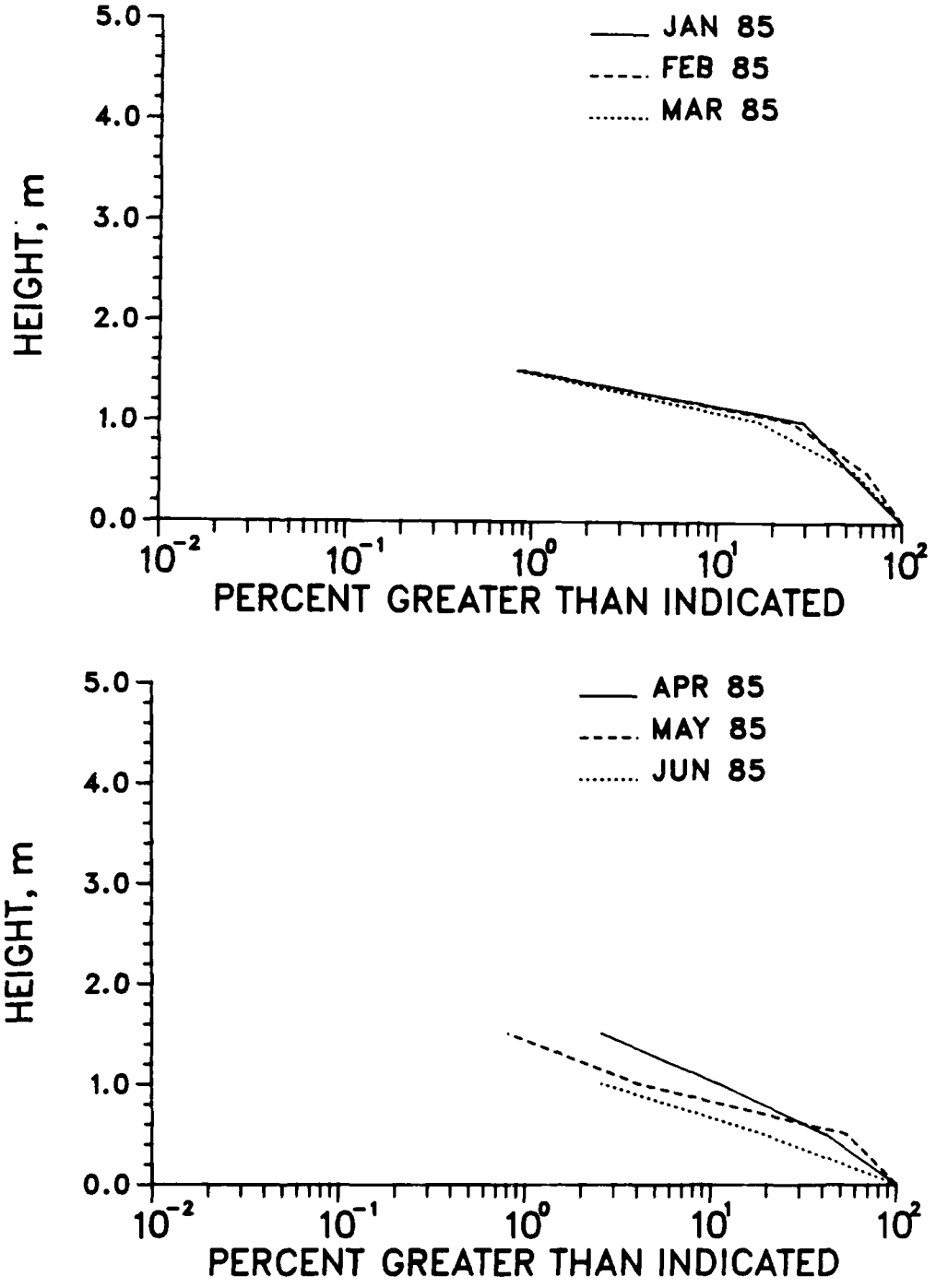
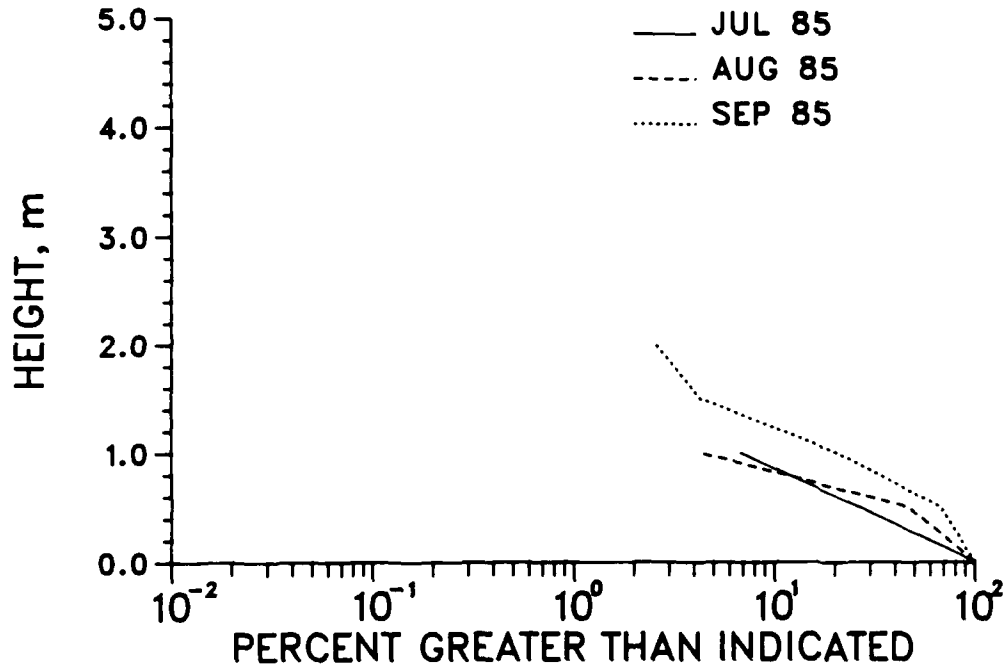


Figure C45. 1985 monthly cumulative distribution of H_{mo} for Gage 645 (Continued)



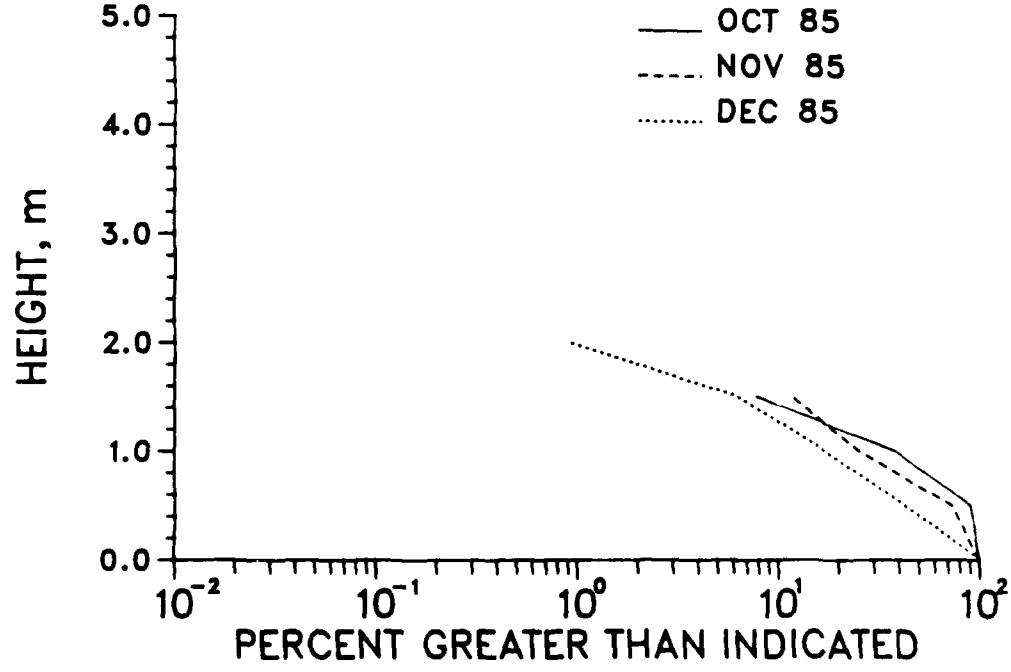


Figure C45. (Concluded)

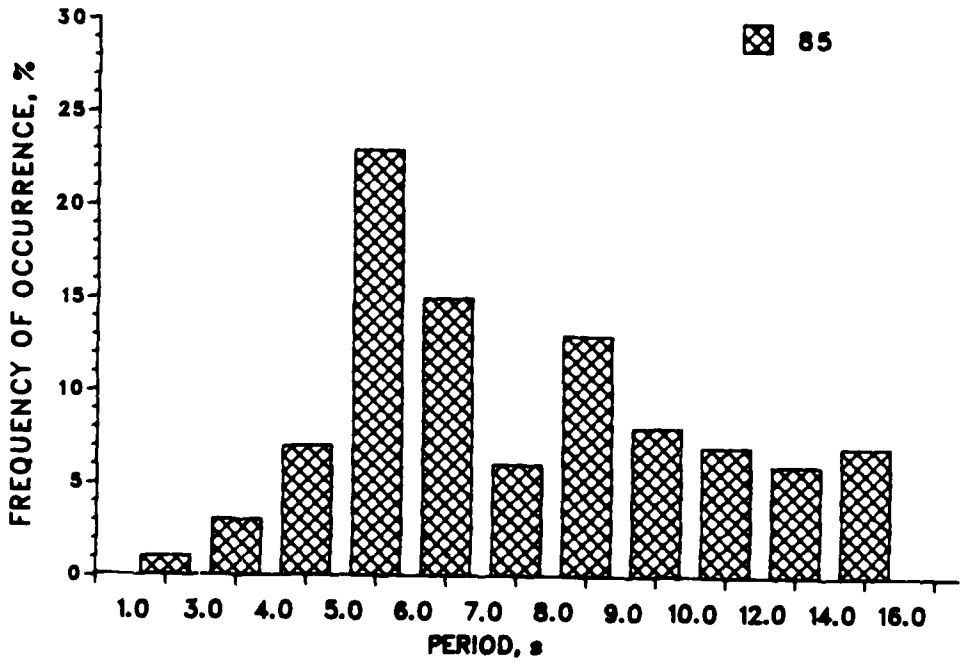


Figure C46. 1985 annual distribution of T_p for Gage 645

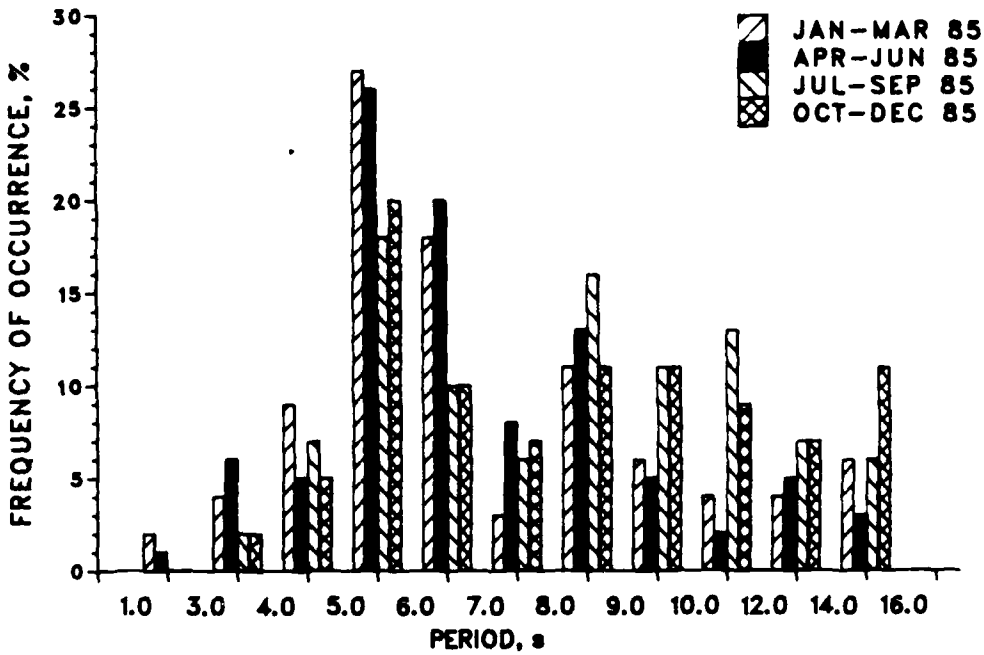


Figure C47. 1985 seasonal distribution of T_p for Gage 645

Table C31

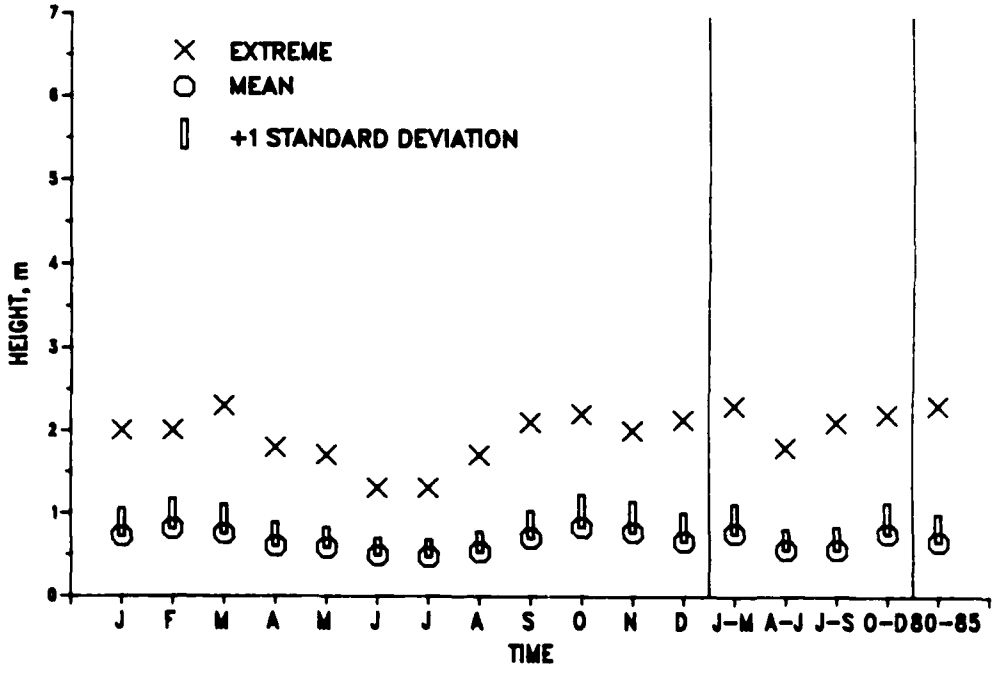
1985 Persistence of H_{mo} for Gage 645

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	46	35	30	20	14	11	10			7	5	4						3	
1.0	39	26	15	7			2												
1.5	14	4	3		2	1													
2.0	2	1																	

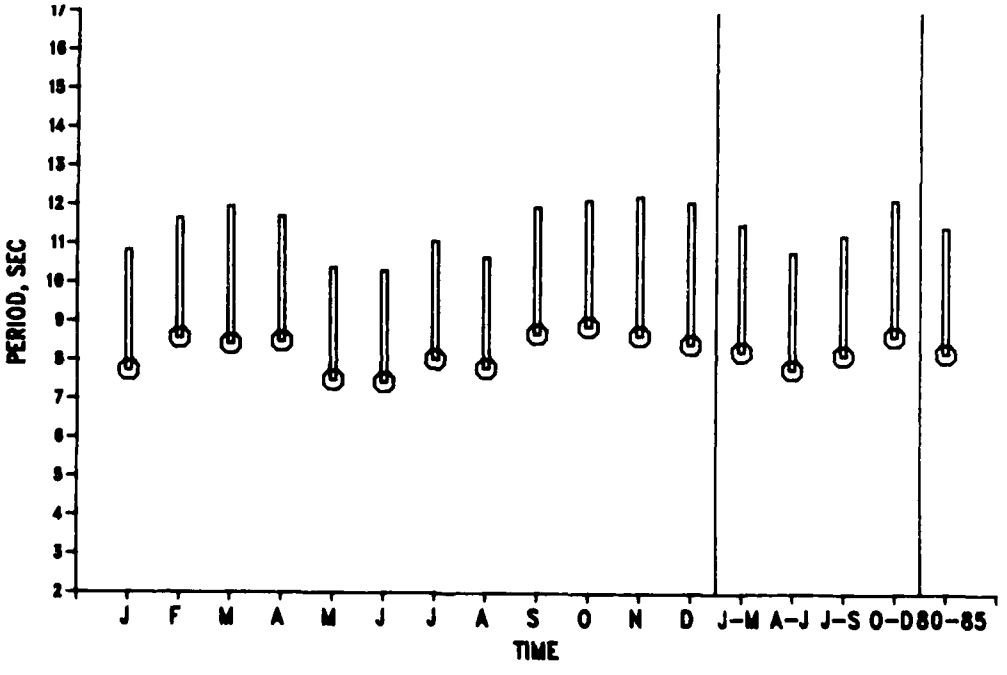
Table C32

1980 Through 1985 Mean, Standard Deviation, and Extreme H_{mo} and T_p for Gage 645

MONTH	MEAN HEIGHT (M)	STD.DEV. HEIGHT (M)	MEAN PERIOD (SEC)	STD.DEV. PERIOD (SEC)	EXT. HEIGHT (M)	DATE	NUMBER OBS.
JAN	0.7	0.3	7.7	3.1	2.0	80	555
FEB	0.8	0.4	8.5	3.1	2.0	83	569
MAR	0.7	0.4	8.4	3.5	2.3	80	642
APR	0.6	0.3	8.4	3.2	1.8	85	574
MAY	0.6	0.2	7.5	2.9	1.7	81	660
JUN	0.5	0.2	7.4	2.9	1.3	82	619
JUL	0.5	0.2	8.0	3.1	1.3	85	634
AUG	0.5	0.2	7.8	2.9	1.7	82	628
SEP	0.7	0.3	8.7	3.3	2.1	85	595
OCT	0.8	0.4	8.9	3.3	2.2	82	658
NOV	0.8	0.4	8.6	3.6	2.0	81	638
DEC	0.7	0.4	8.4	3.7	2.1	85	618
JAN-MAR	0.8	0.4	8.2	3.3	2.3	MAR 1980	1766
APR-JUN	0.5	0.3	7.7	3.0	1.8	APR 1985	1853
JUL-SEP	0.6	0.3	8.1	3.1	2.1	SEP 1985	1857
OCT-DEC	0.7	0.4	8.6	3.5	2.2	OCT 1982	1914
ANNUAL	0.6	0.3	8.2	3.3	2.3	MAR 1980	7390



a. Wave height



b. Wave period

Figure C48. 1980 through 1985 mean, standard deviation, and extreme H_{mo} and T_p for Gage 645

Table C33

1980 Through 1985 Annual Joint Distribution of

H_{mo} versus T_p for Gage 645

ANNUAL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0-2 9	3 0-3 9	4 0-4 9	5 0-5 9	6 0-6 9	7 0-7 9	8 0-8 9	9 0-9 9	10 0-11 9	12 0-13 9	14 0-15 9	16 0-LONGER	
0 00 - 0 49	37	95	202	414	281	279	384	441	643	378	311	81	3546
0 50 - 0 99	16	162	463	943	809	419	350	322	645	181	303	45	4658
1 00 - 1 49			32	250	384	185	93	96	188	116	169	12	1525
1 50 - 1 99				7	31	23	8	30	47	37	58	7	248
2 00 - 2 49						3			1	8	7		19
2 50 - 2 99													0
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	53	257	697	1614	1505	909	835	889	1524	720	848	145	

Table C34

1980 Through 1985 Seasonal Joint Distribution of

H_{mo} versus T_p for Gage 645

SEASONAL JAN-MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1 0-2 9	3 0-3 9	4 0-4 9	5 0-5 9	6 0-6 9	7 0-7 9	8 0-8 9	9 0-9 9	10 0-11 9	12 0-13 9	14 0-15 9	16 0-LONGER	
0 00 - 0 49	62	96	204	374	170	125	243	159	532	198	243	23	2429
0 50 - 0 99	23	215	374	997	832	334	249	266	855	238	476	11	4870
1 00 - 1 49			51	323	600	243	153	108	294	221	294		2287
1 50 - 1 99				6	23	45	17	40	79	85	96		391
2 00 - 2 49										17	6		23
2 50 - 2 99													0
3 00 - 3 49													0
3 50 - 3 99													0
4 00 - 4 49													0
4 50 - 4 99													0
5 00 - GREATER													0
TOTAL	85	311	629	1700	1625	747	662	573	1760	759	1115	34	

(Continued)

SEASONAL APR-JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	38	173	291	599	432	464	534	556	604	389	297	81	4458
0.50 - 0.99	22	178	567	1052	756	421	459	372	664	86	173	32	4782
1.00 - 1.49			11	119	146	54	59	76	140	32	81		718
1.50 - 1.99					11		5		11	5	11		43
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	60	351	869	1770	1345	939	1057	1004	1419	512	562	113	

SEASONAL JUL-SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	22	65	178	447	377	377	668	819	872	442	323	92	4682
0.50 - 0.99	16	162	506	808	700	501	382	382	388	188	226	43	4302
1.00 - 1.49			27	215	232	118	70	65	102	27	65	11	932
1.50 - 1.99				5	16	16		5	5	5	16		68
2.00 - 2.49										5	11		16
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	38	227	711	1475	1325	1012	1120	1271	1367	667	641	146	

SEASONAL OCT-DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	26	47	136	240	146	146	94	225	559	470	376	125	2590
0.50 - 0.99	5	99	402	920	946	418	308	266	684	214	345	89	4696
1.00 - 1.49			42	345	564	324	94	136	219	188	240	37	2189
1.50 - 1.99				16	73	31	10	73	94	52	110	26	485
2.00 - 2.49						10			5	10	10		35
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	31	146	580	1521	1729	929	506	700	1561	934	1081	277	

Table C35

1980 Through 1985 Monthly Joint Distribution of

H_{mo} versus T_p for Gage 645

MONTH JAN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	108	90	216	486	234	162	324	216	414	216	270	54	2790
0.50 - 0.99	18	126	414	1099	1045	324	126	216	793	90	360	36	4647
1.00 - 1.49			72	396	721	342	216	54	270	36	234		2341
1.50 - 1.99					18	18		36	108		18		198
2.00 - 2.49										18			18
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH FEB
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		88	158	334	105	141	193	70	791	158	105	18	2161
0.50 - 0.99	35	176	246	896	685	264	334	334	1090	281	404		4745
1.00 - 1.49			18	316	685	193	105	158	369	369	246		2459
1.50 - 1.99					53	105	35	35	35	105	246		614
2.00 - 2.49										18			18
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH MAR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	78	109	234	312	171	78	218	187	405	218	343		2353
0.50 - 0.99	16	327	452	997	779	405	280	249	701	327	639		5172
1.00 - 1.49			62	265	421	202	140	109	249	249	389		2086
1.50 - 1.99				16		16	16	47	93	140	31		359
2.00 - 2.49										16	16		32
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

MONTH APR
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	35	139	209	314	261	383	592	366	557	610	470	52	3988
0.50 - 0.99	17	209	453	854	679	348	383	279	1045	122	366	17	4772
1.00 - 1.49			17	139	261	105	87	139	209	52	174		1183
1.50 - 1.99							17		17		17		51
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH MAY
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	30	167	242	530	394	409	470	500	606	227	333	45	3953
0.50 - 0.99	15	197	667	1288	1000	485	485	364	515	136	152	30	5334
1.00 - 1.49			15	136	136	45	61	76	76	45	45		635
1.50 - 1.99					30				15	15	15		75
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH JUN
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	48	210	420	937	630	598	549	792	646	355	97	145	5427
0.50 - 0.99	32	129	565	985	565	420	501	468	468		16	48	4197
1.00 - 1.49				81	48	16	32	16	145		32		370
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

Table C35 (Continued)

MONTH JUL
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	47	63	284	662	568	442	994	1088	978	505	347	126	6104
0.50 - 0.99		126	442	789	647	379	779	315	174	158	16	95	3520
1.00 - 1.49			16	189	63	32	47		32				379
1.50 - 1.99													0
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH AUG
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49		111	175	541	430	430	828	1019	780	462	334	32	5142
0.50 - 0.99	16	223	605	924	701	510	430	303	350	48	96		4206
1.00 - 1.49				96	207	111	16	32	64	32	32		590
1.50 - 1.99						32			16	16			64
2.00 - 2.49													0
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH SEP
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	17	17	67	118	118	252	151	319	857	353	286	118	2673
0.50 - 0.99	34	134	471	706	756	622	336	538	655	370	588	34	5244
1.00 - 1.49			67	370	437	218	151	168	218	50	168	34	1881
1.50 - 1.99				17	50	17		17			50		151
2.00 - 2.49										17	34		51
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

(Continued)

MONTH OCT
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	30		30	198	152	137	106	152	486	228	350	106	1975
0.50 - 0.99		61	289	775	790	334	395	258	957	274	334	61	4528
1.00 - 1.49			30	410	532	426	167	228	380	274	289	46	2782
1.50 - 1.99				15	122	30	15	76	137	76	91	76	638
2.00 - 2.49						15				30	30		75
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH NOV
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	31	16	204	251	125	141	110	188	376	533	345	63	2383
0.50 - 0.99	16	94	455	925	956	596	329	282	596	282	298	94	4923
1.00 - 1.49				266	596	329	110	47	141	266	266	63	2084
1.50 - 1.99				16	63	63	16	125	110	63	141		597
2.00 - 2.49									16				16
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

MONTH DEC
PERCENT OCCURRENCE(X100) OF HEIGHT AND PERIOD

HEIGHT(METERS)	PERIOD(SECONDS)												TOTAL
	1.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	10.0-11.9	12.0-13.9	14.0-15.9	16.0-LONGER	
0.00 - 0.49	16	129	178	275	162	162	65	340	825	662	437	210	3462
0.50 - 0.99		146	469	1068	1100	324	194	259	485	81	405	113	4644
1.00 - 1.49			97	356	566	210		129	129	16	162		1665
1.50 - 1.99				16	32			16	32	16	97		209
2.00 - 2.49						16							16
2.50 - 2.99													0
3.00 - 3.49													0
3.50 - 3.99													0
4.00 - 4.49													0
4.50 - 4.99													0
5.00 - GREATER													0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

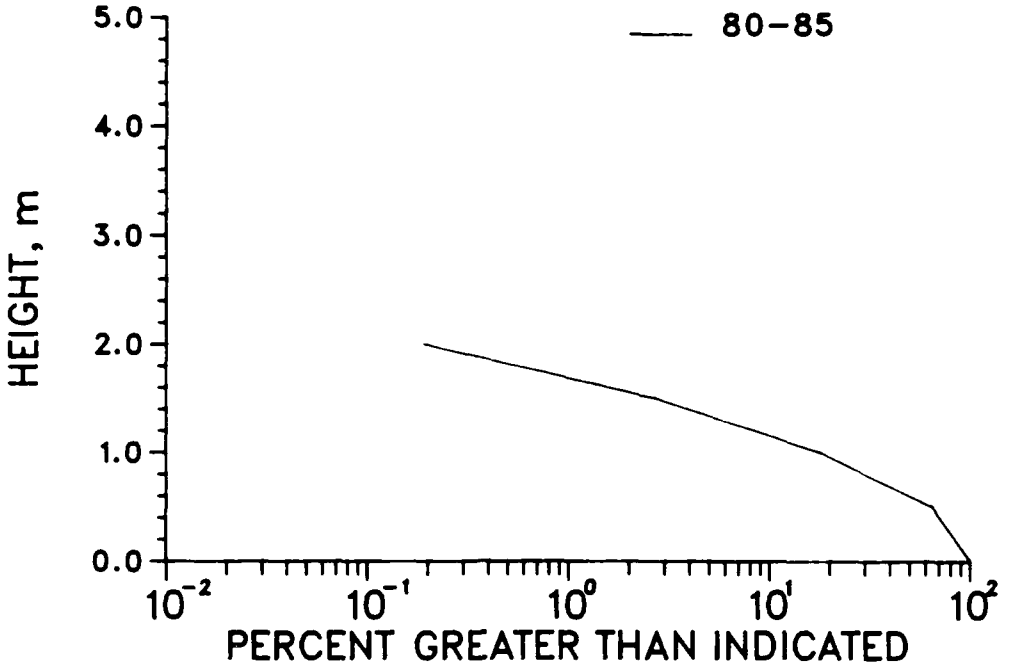


Figure C49. 1980 through 1985 annual cumulative distribution of H_{mo} for Gage 645

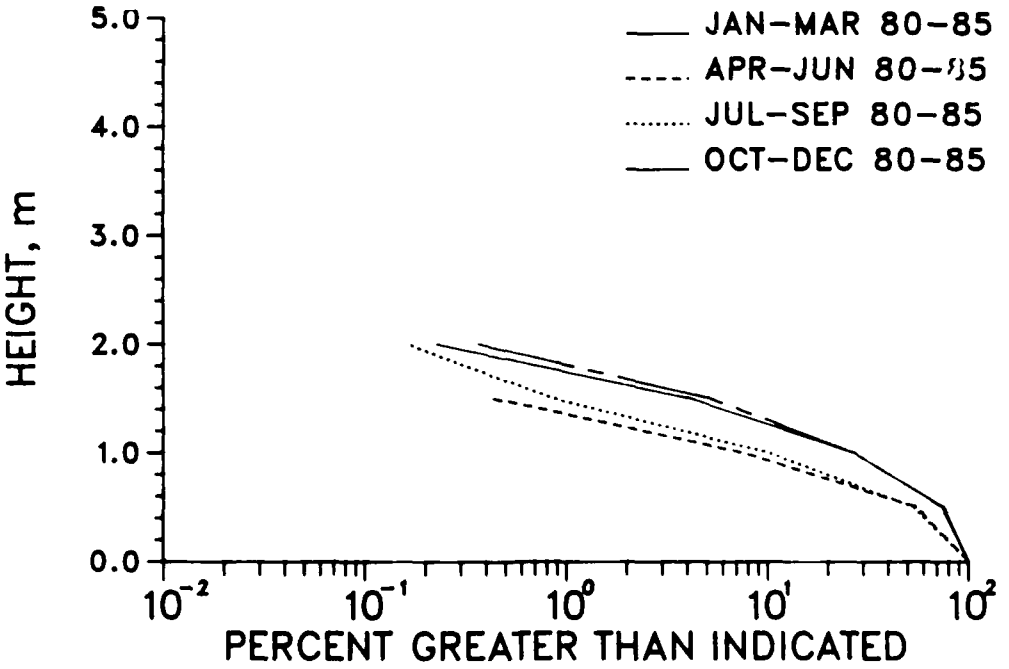
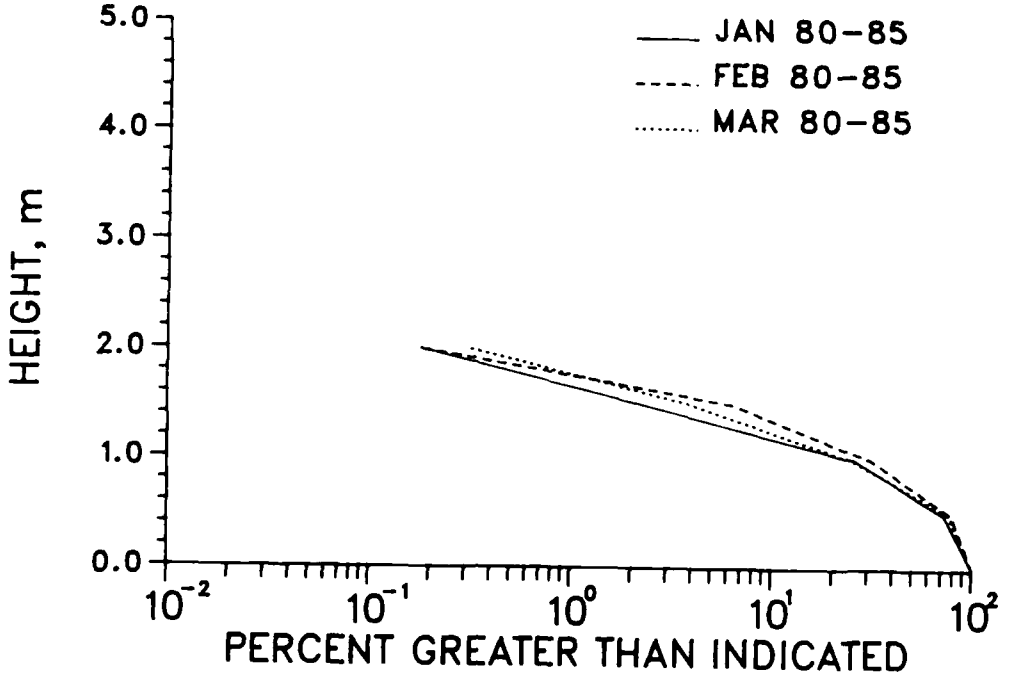


Figure C50. 1980 through 1985 seasonal cumulative distribution of H_{mo} for Gage 645



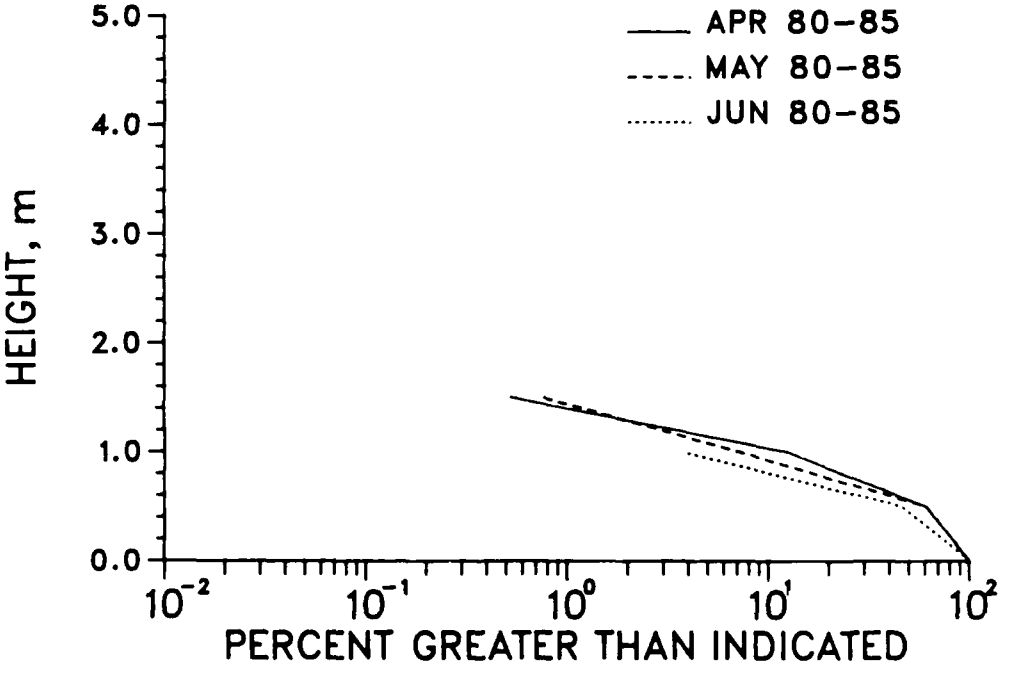


Figure C51. 1980 through 1985 monthly cumulative distribution of H_{mo} for Gage 645 (Continued)

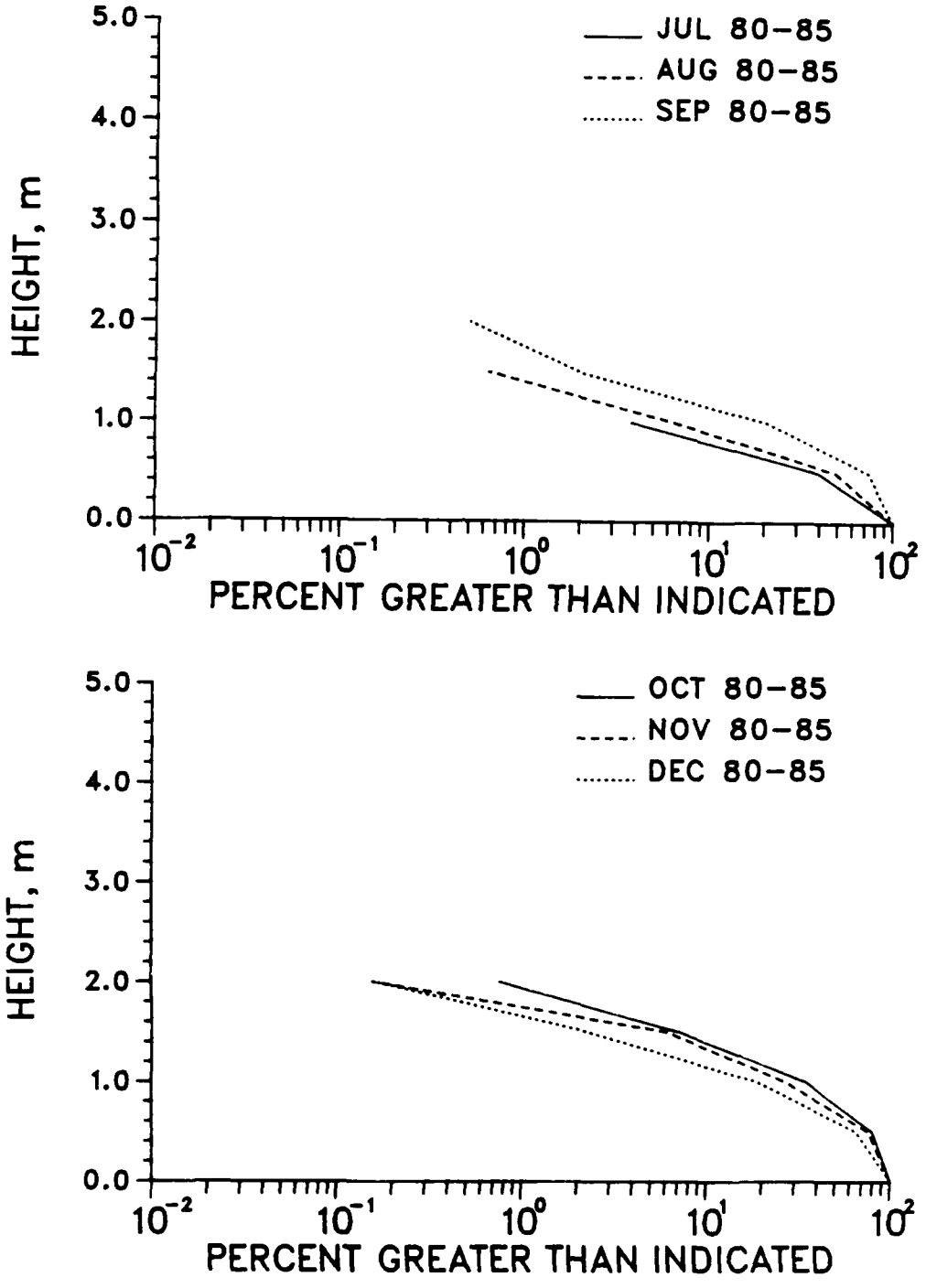


Figure C51. (Concluded)

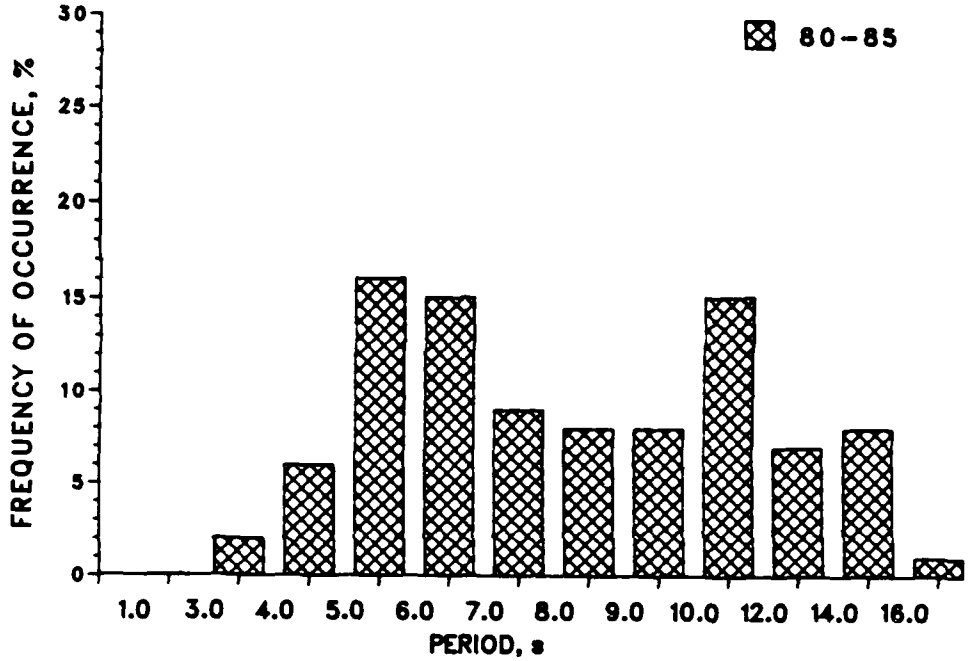


Figure C52. 1980 through 1985 annual distribution of T_p for Gage 645

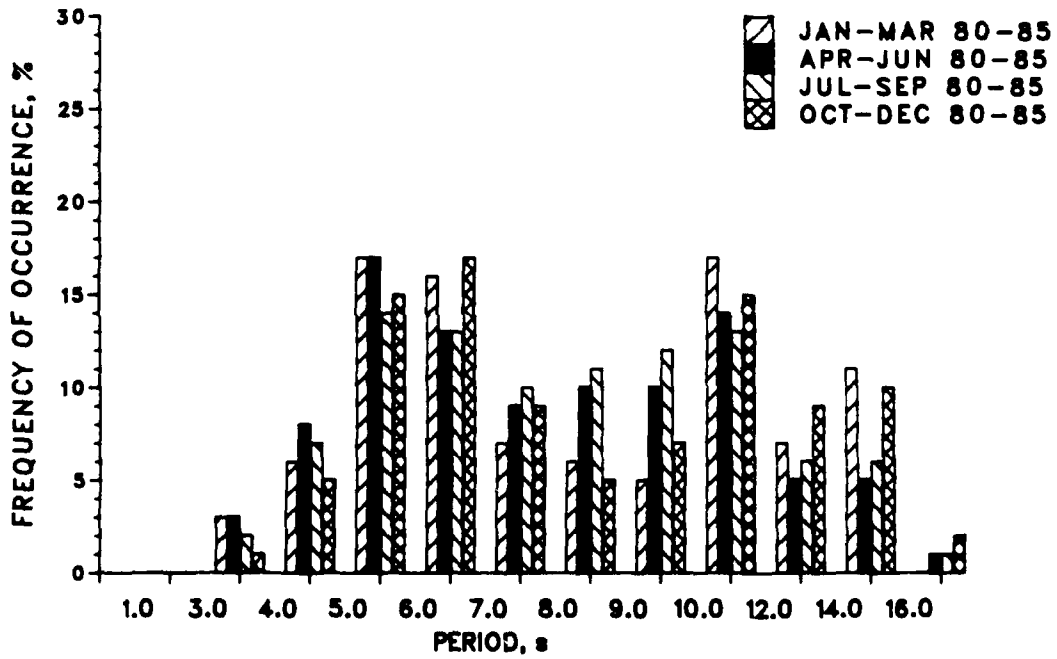


Figure C53. 1980 through 1985 seasonal distribution of T_p for Gage 645

Table C36

1980 Through 1985 Persistence of H_{mo} for Gage 645

Height	Consecutive Day(s) or Longer																		
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19+
0.5	40	33	29	20	19	15		13		9			6						
1.0	39	25	15	9				3											
1.5	11	5		2															

END

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